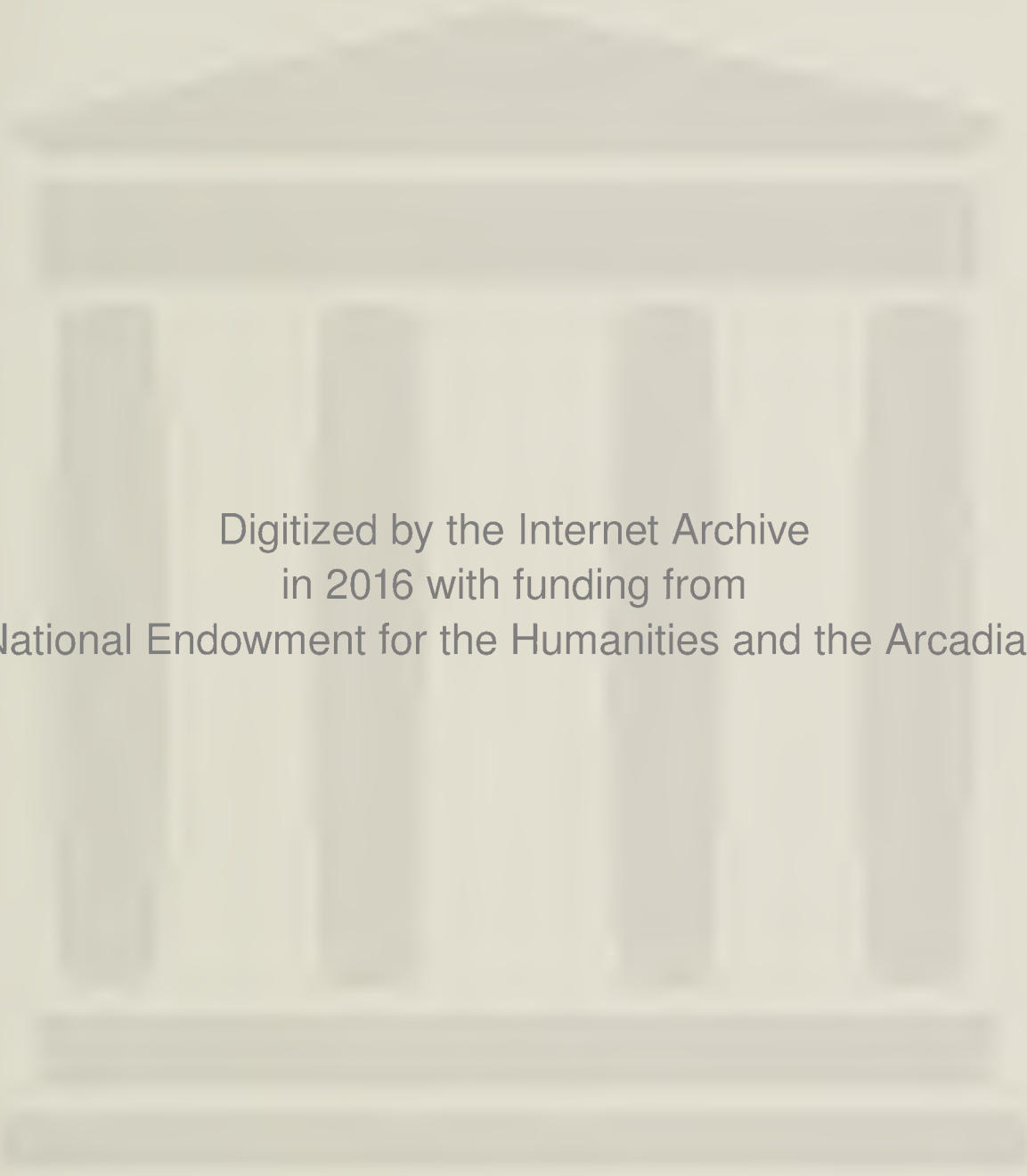


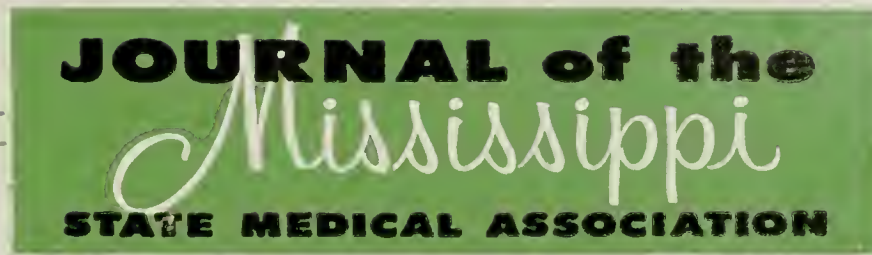


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VOLUME XIV

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This Month . . . Plasma Proteins,

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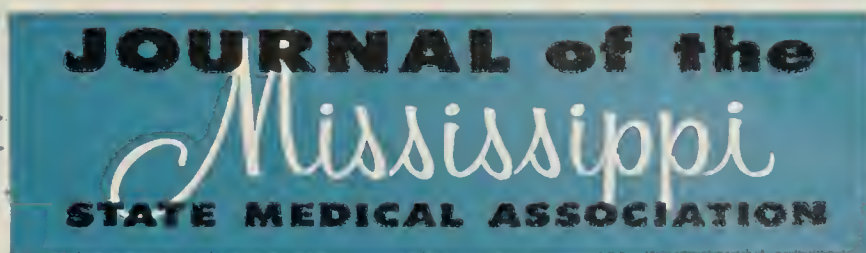


and a few may need counseling
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Volume XIV

Number 1

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THIS MONTH

The President Speaking 16 "The Health Care Crisis" (?)

Medical Organization 23 Muscular Dystrophy
Association Will Open Clinic
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Warnings: If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.

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patients should be carefully monitored.

Adverse Reactions: Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of live *Ascaris* in the mouth and nose. Hypersensitivity reactions



ORIGINAL PAPERS

Diagnostic Significance of Plasma Proteins: A New Dimension in the Clinical Laboratory

MOHAMED A. MOBARAK, M.D., D.Sc.,* and

WARREN N. BELL, M.D., D.Sc.

Jackson, Mississippi

IT HAS BECOME increasingly apparent over the past few years that the quantitation of plasma proteins represents an accurate means for the determination of a variety of disease states and genetic abnormalities. Until recently, available methods for the performance of these evaluations have been, however, prohibitively time consuming and costly. As a result, the routine performance of these tests has been severely limited. The introduction of highly advanced and sophisticated methods in the past decade added one of the most useful new dimensions to clinical laboratory diagnosis.

Salting out methods for albumin and globulins, electrophoresis, flocculation and turbidity tests helped the clinician a great deal in the past. More advanced techniques are now progressively replacing these methods.

The clinical applications of immunoelectrophoresis (IEP) are concerned mainly with serum, but protein-pattern changes have also been studied in urine, cerebrospinal, peritoneal, and other body fluids. A distinct advantage of the technique is the ability to recognize specific changes. Diseases that can be diagnosed by immunoelectrophoresis include multiple myeloma, Waldenström's macroglobulinemia, and the relatively rare entities of hypogammaglobulinemia, agam-

maglobulinemia, a- γ A-globulinemia, analbuminemia, afibrinogenemia, atransferrinemia, Wilson's disease, and bisalbuminemia. In multiple myeloma the presence of the myeloma paraprotein¹ in

The quantitation of plasma proteins represents an accurate means for the determination of a variety of disease states and genetic abnormalities. Their complex nature made them difficult to identify, but now immunodiffusion technics, which are specific for identification and quantitation of those proteins, have been developed. The authors discuss analytical methods for plasma protein determinations and give the diagnostic significance of specific plasma protein fractions.

serum is revealed by a sharp, well-defined deflection of the γ G-globulin arc toward the antibody trough, a deflection which indicates an increase of antigen in this usually narrow mobility range. Due to this increase in the antigen concentration, optimal antigen-antibody ratio for precipitin formation is obtained at a position closer to the antibody trough than is normally the case. (See Figure 1.)

In Fc (= heavy chain) disease, patterns similar to those of multiple myeloma are obtained,

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* Dr. Mobarak is now deceased.

but differentiation between the two diseases is easily achieved by the presence of Bence Jones protein in myeloma, and its absence in Fc disease. Another clue to diagnosis is the presence of a monoclonal peak on electrophoresis of urine which is negative for Bence Jones protein.

In Waldenstrom's macroglobulinemia, the disease is recognized by the presence of an abnormally-shaped γ M-globulin (see Figure 2), the pathologic macroglobulin.

Hypogammaglobulinemia may be recognized in that the precipitin arc of the IgG globulin is shorter, weaker, and is situated further from the antibody trough than normal. (See Figure 3.) In agammaglobulinemia, the precipitin line would be missing altogether. Congenital metabolic defects may be associated with a deficiency of a specific protein such as albumin, transferrin, or ceruloplasmin. The lack of protein is revealed in immunoelectrophoretic patterns by the absence of the corresponding precipitin lines. Immuno-electrophoresis of serum can also reveal the unusual condition of bisalbuminemia, where a double-humped albumin precipitate is present due to the occurrence of two albumin fractions with similar immunologic properties but of different electrophoretic mobility.²

While the diagnosis of hypogammaglobulinemia or agammaglobulinemia can usually be made by immunoelectrophoresis, absolute values of the specific globulin deficiencies may be readily determined by radial immunodiffusion. Replacement therapy can best be gauged by this same technique. In the hyperglobulinemic disorders (e.g., myeloma and macroglobulinemia), the effectiveness of chemotherapy, plasmapheresis, etc., can be followed in a similar fashion. Albumin, ceruloplasmin, transferrin and α_2 macroglobulin can also be quantitated using this technique.

The Auto Analyzer system is now being used for an advanced Automated Immunoprecipitin technique whereby protein profiling has become practical. The Automated Immunoprecipitin procedure employing the Fluoronephelometer was especially developed to detect specific proteins, taking advantage of immunological reactions.

SPECIFIC FRACTIONS

The measurement of albumin³ has been a valuable adjunct to a variety of studies. Its major role has been to assess catabolic processes and hepatic protein synthesis rates and to give the clinician some concept of the oncotic activity of plasma. Low serum albumin levels are present

in acute or chronic illness of any nature, acute and chronic liver disease, nephrosis, protein losing enteropathy, extensive burns, malabsorption and malnutrition.

IgG has been found to possess antibody ac-

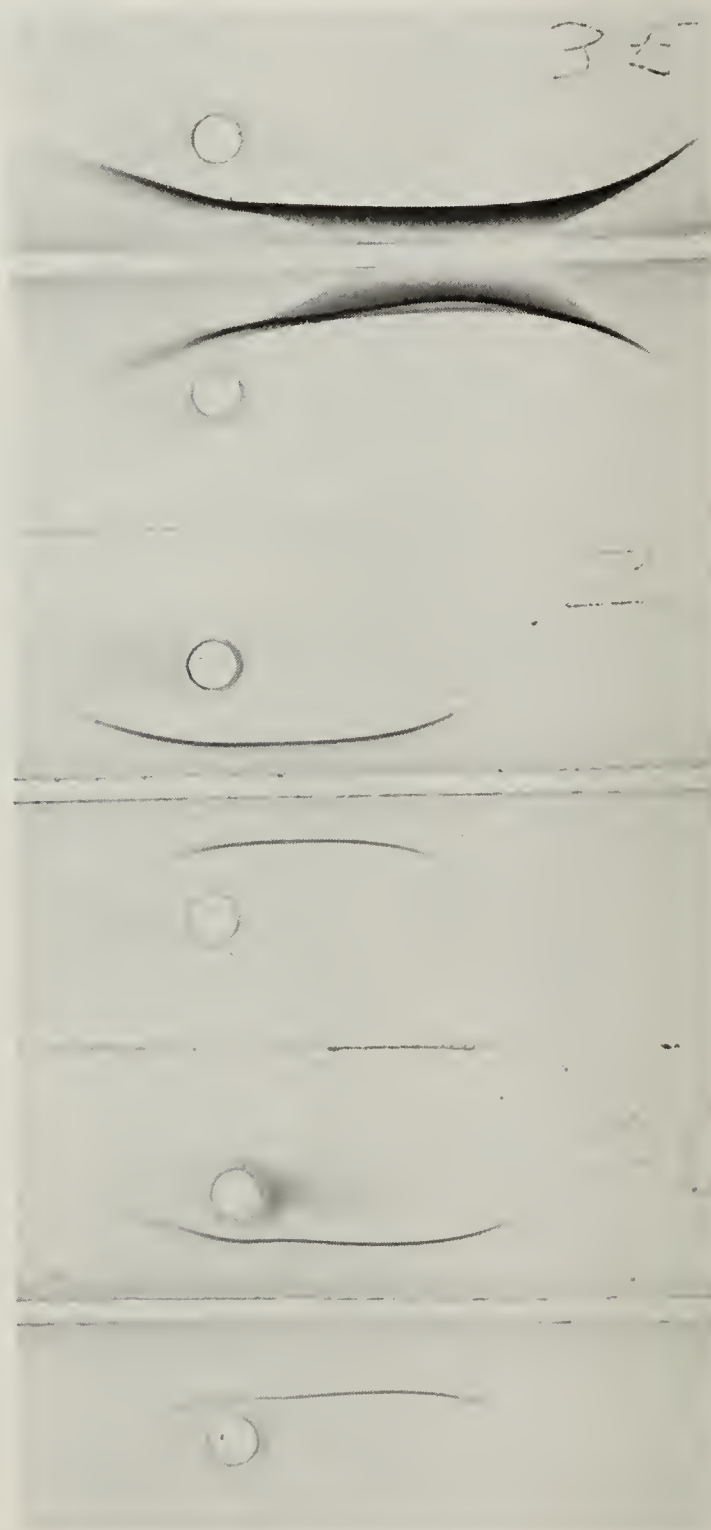


Figure 1. Immunoelectrophoretic patterns comparing normal serum in top cup of each slide with multiple myeloma serum in bottom cups. The top trough was filled with Anti-IgG antiserum, the middle with Anti-IgA, and the bottom with Anti-IgM. Note the appearance and position of myeloma IgG paraprotein, and the decrease of IgA and IgM in myeloma serum as indicated by diminution in intensity and length of precipitin arcs.

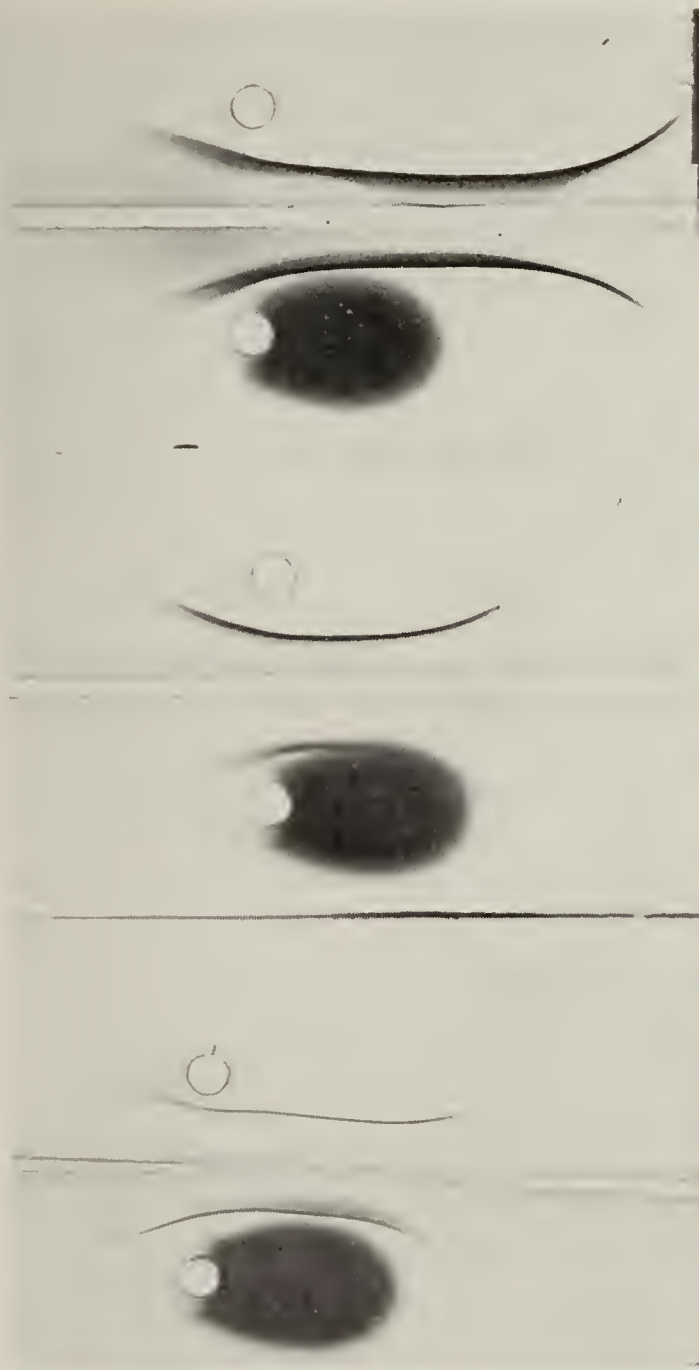


Figure 2. Immunoelectrophoretic patterns of serum from a case of Waldenström's macroglobulinemia. The top cup of each slide was filled with reference normal human serum, and the bottom cups were filled with patient serum. Top trough was filled with anti-IgG antiserum, the middle with anti-IgA, and the bottom with anti-IgM. Decrease of IgG and IgA in patient's serum is indicated by the shorter precipitin arcs as compared to normal serum. Note the deeply stained macroglobulin spots near wells containing patient's serum, and the increased intensity of the macroglobulin arc.

tivity against toxins, foreign proteins and viral and bacterial antigens. The IgG class of immunoglobulins constitutes the largest part (about 75 per cent) of the immunoglobulin population with a mean adult serum level of $1200 \text{ mg} \pm 319 \text{ mg/100 ml}$. It is actively transported across the

placenta, thus providing the newborn with an abundant supply of antibodies for the first few months of life. A low level is reached at about two to three months of age after which the infant synthesizes his own IgG. The normal adult level is attained at about five to seven years of age.⁴

The measure of G globulin has been used extensively for clinical evaluation, first by the pediatrician when it became known that low levels of gamma G predisposed the patient to infection.⁴ Children who seem to be small physically, or who have chronic infectious processes, chronic coughs, tonsillitis, or evidence of congenital musculoskeletal disorders stimulate physicians to consider the possibility of agammaglobulinemia or hypogammaglobulinemia.⁵ Adults, usually young adults, who have repeated infections are eventually assessed by this method, as are patients suffering disease states where infection is a worrisome problem; for instance, patients who have lymphoma or who are receiving antimetabolites for other neoplasms or following organ transplantation.

Alternatively, very high levels of gamma G (see Figure 4) are of interest. Patients with a wide variety of immunologic syndromes⁶ e.g., rheumatoid arthritis, systemic lupus, sarcoidosis, are examined to measure the duration and activity of the disease process; patients with high levels of gamma G globulin usually have more active disease. Patients with obscure clinical problems are frequently studied by this technique because some valuable information can be obtained from the finding of a very high level of gamma A. Patients with subacute bacterial endocarditis (SBE), tuberculosis, congenital syphilis, and some patients with occult lymphomas have high levels of gamma G globulin. With respect to surgical orientation, this protein is important in the evaluation of painless jaundice. Patients who appear jaundiced but have no abdominal pain to suggest acute gallbladder disease or active hepatitis may be divided into two groups: (1) those with a stone or a neoplasm obstructing the common duct, and (2) those with indolent chronic liver disease. Those with chronic liver disease who develop jaundice have a marked elevation of gamma G globulin; those with liver disease and jaundice secondary to an acute obstruction of the common duct have normal levels, a very useful diagnostic parameter.

IgA possesses antibody activity against viruses and several bacteria and bacterial products (e.g., escherichia, brucella, diphtheria, and tetanus toxins).

In much the same fashion as with IgG, the pediatric patient is studied for levels of IgA. While it is markedly diminished in certain pediatric diseases, its value is somewhat age dependent. Most patients younger than four years of age have very low levels of gamma A. It is only after five or six years of age that levels rise significantly and certain neurologic diseases, associated with very low or undetectable levels of IgA, become a consideration. In the adult population it has recently been found that about one to two per cent of perfectly normal individuals lack gamma A globulin. A long-term evaluation of these patients has not yet been possible, and they may indeed later develop some significant disease related to this lack. This protein is rather poorly understood in its pathophysiologic role. Early data now suggest that elevations are related to acute viral infections, which would make the protein more significant clinically than we currently recognize. Serum IgA is decreased in hereditary ataxia telangiectasia, immunologic deficiency states (e.g., dysgammaglobulinemia, congenital and acquired agammaglobulinemia, and hypogammaglobulinemia) and malabsorption syndromes. It is elevated in Aldrick syndrome, most cases of liver cirrhosis, certain stages of collagen and other autoimmune disorders and chronic infections not based on immunologic deficiencies. As with gamma G, massive elevations of a monoclonal variety, such as are seen in multiple myeloma, are of major interest in the adult population. Very high levels in the grams per cent range of both gamma A or gamma G make multiple myeloma a serious consideration. In recent years, Tomasi, et al,⁷ have studied extensively the existence of secretory IgA, the predominant antibodies at all interfaces between the internal and external environment. Secretory IgA differs from serum IgA in that it possesses an additional "piece" forming a larger molecule of 11.4S with a molecular weight of approximately 385,000.⁷ Isohemagglutinins, cold agglutinins, rheumatoid factors, antibodies against somatic "o" antigens of gram negative bacteria, etc. are characteristically, but not exclusively, found in the IgM class. Increased IgM levels have been reported in adults with Waldenström's macroglobulinemia (M-component), trypanosomiasis, actinomycosis, bartonellosis, malaria, infectious mononucleosis, and in certain cases of dysgammaglobulinemia.⁸ Decreased IgM levels may be found in agammaglobulinemia, certain lymphoproliferative disorders, lymphoid aplasia, IgG and IgA myeloma, and in dysgammaglobulinemia.

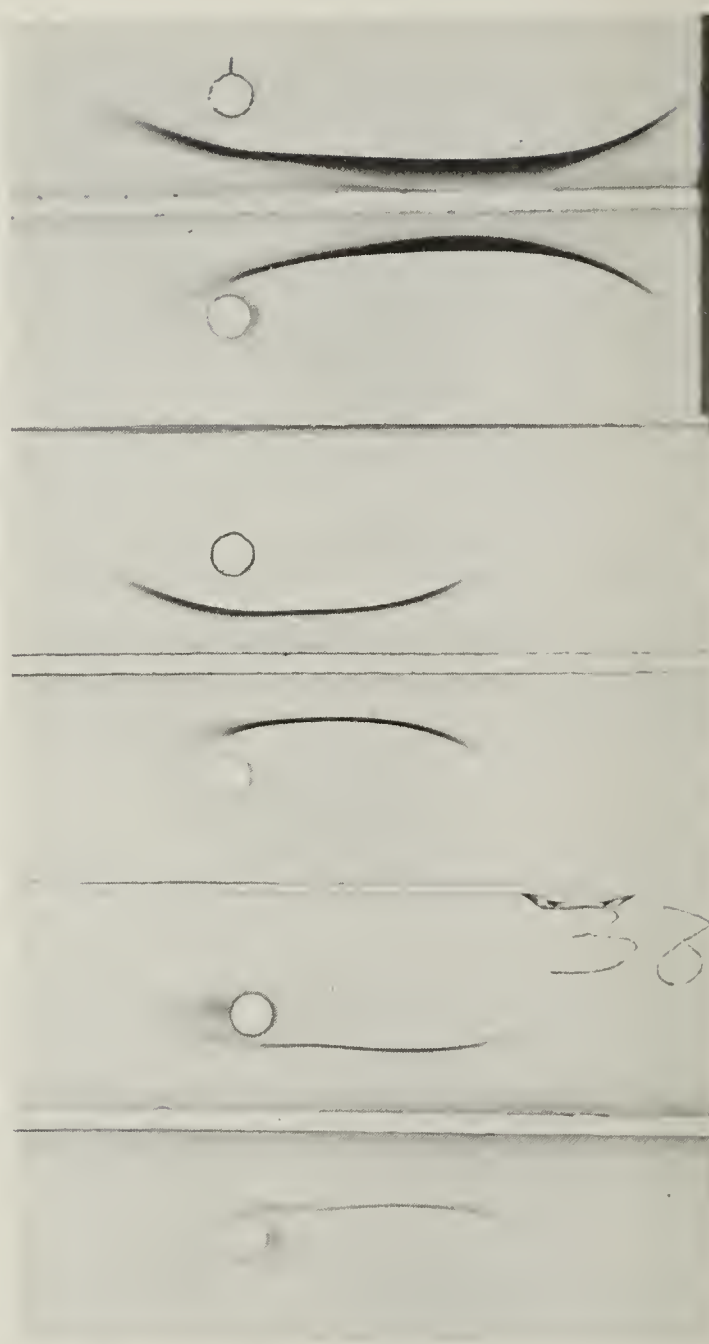


Figure 3. Immunelectrophoretic patterns comparing normal serum in top cup of each slide with serum from a patient with protein-losing enteropathy in bottom cups. The top trough was filled with anti-IgG antiserum, the middle with anti-IgA and the bottom with anti-IgM. Note the decrease in IgG, IgA and IgM in patient's serum as indicated by diminution in intensity and length of precipitin arcs.

In the same fashion as IgA and IgG, IgM is low in the normal child, the value increasing with age. Its major pediatric application is in the newborn. Babies born with possible intrauterine infection, especially rubella, have demonstrable levels of gamma M at birth, while ordinarily there is very little. A two- or three-day-old child with jaundice of unknown etiology, or a child jaundiced at birth, suggests neonatal or intrauterine infection.⁹ Determination of IgM may help to identify a child who has neonatal rubella, cytomegalic inclusion disease, syphilis, and toxo-

plasmosis. In the adult, IgM plays a much more important role as the acute phase protective immune mechanism, rising fairly rapidly from baseline levels to high levels in such viral processes as hepatitis, where levels of five times normal are not uncommon. Very high levels, as in macro-

globulinemia, parallel the situation with IgA and IgG globulin and denote a neoplastic lymphoid cell process.

Thermal properties of plasma proteins have been utilized as a diagnostic tool. Cryoglobulins are paraproteins which undergo reversible precipitation on cooling. They may belong to IgG, IgA, IgM or Bence Jones proteins. Cryofibrinogen may be seen when heparinized plasma is cooled to 0°C. Its presence is usually associated with neoplastic disease.¹⁰

Pyroglobulins are paraproteins which precipitate irreversibly on heating to 56°C. They may be associated with myeloma, macroglobulinemia, lymphoma, collagen disease or cancer. Pyroglobulins are usually discovered when serum is inactivated by heat for VDRL serology test.

Bence Jones proteins are usually present in urine in cases of myeloma, but may also be found in metastatic malignancy, primary macroglobulinemia, chronic renal disease with albuminuria, some normal subjects, and in benign monoclonal gammopathy.¹¹

COMPLEMENT C'3

Recently, considerable interest has been centered around the quantitative determination¹² of one component of complement C'3. Serum C'3 levels are usually low in active systemic lupus erythematosus and lupus nephritis, and thus serve as a very helpful laboratory guide in differentiating this disease from other "collagen disorders." C'3 levels, however, are also lowered in active acute glomerulonephritis, thus aiding in distinguishing this disorder from pyelonephritis and other renal disorders. Markedly diminished levels occur in active acute glomerulonephritis and active systemic lupus erythematosus patients with hemolytic anemia mediated by or in association with complement. Lowered levels occur in diseases associated with cryoglobulins or cryoagglutinins. Elevations also occur, and early data suggest future utility in diagnosis of serum sickness and amyloidosis. It has been described in active sarcoidosis. Analysis of haptoglobin could replace the sedimentation rate, giving considerably greater accuracy. Elevations of haptoglobin are responses to such acute inflammatory processes as occur in abscess, sarcoidosis, rheumatoid arthritis, sometimes postoperatively in certain cancers with inflammatory components, SBE, tuberculosis, etc. Lowered levels occur in patients who are releasing hemoglobin intravascularly, usually in hemolytic anemia. Levels less than five mg per cent are highly suggestive of this process. Haptoglobin levels are of considerable interest to cardiologists

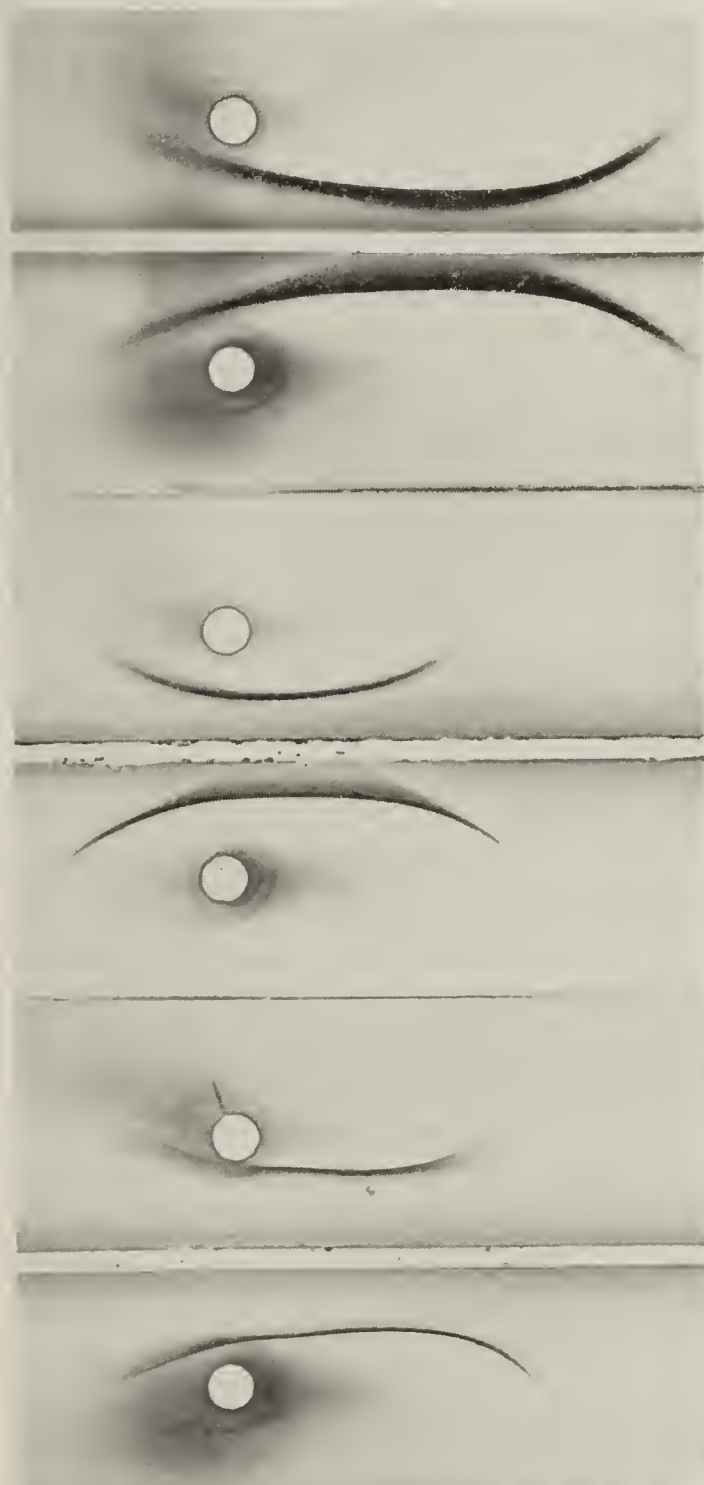


Figure 4. Immunoelectrophoretic patterns comparing normal human serum (top well of each slide) with serum from a patient with polyclonal gammopathy (bottom wells). Top trough was filled with antihuman IgG, middle with antihuman IgA, and bottom trough with antihuman IgM. Note that the hypergammaglobulinemia serum contains higher concentrations of IgG, IgA, and IgM as judged by the intensity, length and the distance of the lines from the troughs.

and cardiac surgeons, who replace a patient's valves with mechanical prostheses, as an indication of anemia which is relatively refractory and is based on hemolysis due to such mechanical prosthesis. The test has been useful in measuring the degree of hemolysis and monitoring it as time goes on. Zero-level haptoglobin has been noted in patients with large resolving hematoma, reflecting the same process as the release of hemoglobin from red cells by hemolytic process, hemoglobin in this instance coming from a leakage from the hematoma into the blood stream. This occurs posttraumatically, following an aortic aneurysm rupture, etc. Decreased levels may be important in the diagnosis of sepsis from either an occult abscess or subacute bacterial endocarditis. While these patients have a negative Coombs' test, they have zero haptoglobin, probably on a nonimmune hemolytic basis; the actual process is not understood.

Elevation of α_1 anti-trypsin may be the only abnormality detected in early inflammatory processes. It rises within the first few days of pneumonia, abscess formations, or arthritis, and therefore represents a rather good measurement of early inflammatory processes. A diminution in levels of α_1 anti-trypsin has recently been shown to have a very close correlation with chronic lung disease. This is a genetically determined abnormality in which manifestation of chronic lung disease is apparently related to absence of this protein from the blood. Some patients have levels of this protein below the limits of detectability, while others have a marked diminution; both represent genetic variants. Patients with diminished levels have less severe lung disease.

The role of transferrin in the transport of iron has only recently been appreciated. A fair number of patients with anemia refractory to iron loading simply lack sufficient carrier to bring the element to the marrow. This is notable in patients with liver disease, who are incapable of producing transferrin in adequate amounts, and in patients with nephrotic syndrome, where the production of transferrin is unequal to the loss in urine. This abnormality also occurs in protein-losing enteropathies where plasma proteins are lost into the G.I. tract rather than into the urine, and probably plays a distinct role in anemia associated with burns, in which the small molecular species of proteins, including transferrin are lost through the wound site. Increase has been found primarily in the latter part of pregnancy, iron-deficiency anemia, and acute hepatitis.

Immunochemical quantitation of ceruloplasmin has also been of interest to the clinician. Patho-

logic hypoceruloplasminemia may be a consequence of interference with protein synthesis in severe malnutrition or, exceptionally, in advanced hepatic insufficiency. It may also be seen in cases of defective absorption of copper and intestinal malabsorption, in nephrosis, or in protein-losing enteropathies. In most of these conditions, the hypoceruloplasminemia is transitory, while lifelong deficiency or virtual absence of the copper-binding protein is characteristic only of Wilson's disease.

SUMMARY

Plasma proteins are of such a complex chemical nature that they have been difficult to identify by conventional chemical and electrophoretic technics. Immunodiffusion technics are specific for identification and quantitation of those proteins for which specific antibodies have been developed. The recent introduction of automated protein quantitation enables the clinical laboratory to help clinicians in diagnosis of a wide variety of disease states which are difficult, or even impossible, to confirm without quantitation of specific plasma proteins. Proteins of particular interest include ceruloplasmin, transferrin, IgA, IgM, IgG, complement C3, α_2 -macroglobulin, haptoglobin and albumin. ★★★

2500 North State Street (39216)

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Orange Pulp Small Bowel Obstruction in a Postgastrectomy Patient: A Case Report

W. THOMAS RUEFF, M.D.
Jackson, Mississippi

THE WORD "BEZOAR" has an interesting history. It is either Persian or Arabic in origin, and when first discovered in goats and antelopes, bezoar stones were highly valued as "antidotes" or "anti-poisons." The bezoar stone was listed in a pharmacopoeia compiled by Muwaffak in 923 A.D. Great sums of money were paid, and it is even reported that a castle was traded for possession of these rare items, the medicinal properties of which continued to be recognized even as late as in a nineteenth century British pharmacopoeia.¹

Bezoar is defined as "a concretion of various character sometimes found in the stomach or intestines of man or other animals," and is divided into four general types: (1) Trichobezoar (hair); (2) Phytobezoar (fruit and vegetable fibers) and Diospyrobezoar (specifically persimmon bezoars); (3) Trichophytobezoar (mixture of hair and fruit and vegetable fibers); and (4) Concretions (seen usually in commercial painters who imbibe shellac for alcohol content and form conglomerations from the resins and gums contained therein).²

This discussion deals only with type 2 and its relationship to the postgastrectomy patient.

Since Seifert (1930)³ reported the first case of a phytobezoar obstructing the small intestine of a postgastrectomy patient, this entity has become a well-known clinical problem. Spurzem and Deser⁴ were able to collect only 12 cases from the world's literature in 1957. Norberg,⁵ in 1961, added 21 cases to the seven he had described in 1955.⁶ In 1964 Schlang and McHenry⁷ reported on 84 cases in which the intestinal obstruction was secondary to orange pulp alone.⁷

Although still rare, there have been over 150 cases of postgastrectomy phytobezoar reported since 1955.⁸ This increasing frequency prompted the writing of this paper, which has a three-fold

There have been, over the past 30 years, an ever increasing number of patients who, at various intervals after partial gastrectomy for duodenal ulcer disease, have developed intestinal obstruction secondary to phytobezoars. The author reports such a case and discusses the problem in general.

purpose: (1) to re-emphasize to surgeons that phytobezoar intestinal obstruction in the postgastrectomy patient is an increasingly recognized problem and should be considered as a possible diagnosis when this type patient presents; (2) to present some plausible explanations for this syndrome and suggest preventative measures; and (3) to add to the literature an additional case report of mechanical small bowel obstruction secondary to multiple phytobezoars in a postgastrectomy patient.

Only a few bezoars have been detected in patients in the University Hospital during the last 17 years and the case to be reported is the only one that fits the topic of this paper.

CASE REPORT

This 42-year-old white male presented to the University Medical Center on April 4, 1972, with a 24-hour history of cramping epigastric pain with sudden onset. Approximately eight months previously he had undergone hemigastrectomy,

From the Department of Surgery, University of Mississippi Medical Center, Jackson, Miss.

vagotomy and Billroth II anastomosis for peptic ulcer disease. The immediate postoperative period was complicated by delirium tremens and a myocardial infarction requiring temporary transvenous pacing. After his recovery, he did well and was without ulcer symptoms during the ensuing eight months, until the onset of his present illness.

The pain, which had begun on the evening of April 3, increased in severity during the night and was associated with intermittent vomiting of yellow liquid but without hematemesis. The patient consulted his local physician on April 4 and was referred to the University Medical Center with a tentative diagnosis of either mechanical intestinal obstruction or acute pancreatitis.

Physical examination disclosed an anxious, thin, edentulous white male, who complained of severe abdominal pain. The vital signs were pulse 90; blood pressure 170/120; and respiration 26. The abdomen was slightly distended with marked and diffuse tenderness, most severe in the epigastrium. Rebound tenderness was referred primarily to the periumbilical area. Bowel sounds were active and suggestive of obstruction. Roentgenograms of the abdomen (see Figure 1) revealed several loops of dilated small bowel, which on the erect study contained multiple air-fluid levels. There was no air present in the large intestine.

Lab results were: WBC 23,800; H/H 17.2/52; electrolytes within normal limits; and Amylase 180 (normal up to 85).

Urinalysis showed 5-10 WBC/HPF and TNTC RBC/HPF. Because of this finding, an intravenous pyelogram (IVP) was obtained, and though not an ideal study, it revealed bilateral renal function with a suggestion of a mass in the right renal pelvis. Also noted on the IVP films were several radiologic densities in the left lower quadrant which were interpreted initially by the radiologist as "artifactual densities" (see Figure 2). These densities were, retrospectively, the small intestinal bezoars—an interesting observation since x-ray findings in the cases we have reviewed showed only obstruction and failed to show the actual bezoar mass.

Laparotomy was performed, and there were no abnormalities of the gastric remnant or of the generous retrocolic Billroth II anastomosis, but on examination of the mesenteric small bowel, six to eight foreign body masses were found to be causing partial to complete obstruction from mid-jejunum to the ileocecal valve, the one in

this area being lodged in the valve, half in the cecum and half in the ileum. At this point the diagnosis was obvious, and no peritonitis, save some localized serosal inflammation over a tightly impacted bolus, was present. It was possible to milk the bezoars into the colon without difficulty, precluding enterotomy and its attendant risks. The masses were broken up manually, to the extent safely possible, and distributed throughout the colon. The remainder of the abdominal examination was unrevealing except for small, scarred kidneys suggestive of chronic pyelonephritis. Except for some agitation and anxiety in the early postoperative period, this patient's hospital course was benign and he was discharged on the 11th postoperative day. He was put on a soft diet and was having regular bowel movements. He has been worked up subsequently by the Urology Service and their working diagnosis at this time is renal papillary necrosis secondary to prolonged use of Darvon compound containing phenacetin, with phenacetin producing the renal damage.

DISCUSSION

Of special interest in this case is the fact that the patient is edentulous. He was approximately nine months postoperative partial gastrectomy with Billroth II anastomosis at the onset of his in-



Figure 1



Figure 2

testinal obstruction, and in talking with his wife after surgery, we ascertained that his diet had contained a large quantity of oranges over the last two to three weeks prior to surgery.

The factors involved in the formation of obstruction by food are multiple. In many of the previously reported cases, dentition was poor or the patient was edentulous, as in the case we have reported, and the bolus is almost always a pulpatious fruit or vegetable with a high cellulose content. These foodstuffs are poorly digested by the normal human stomach, and the gastric atony and decreased acidity produced by vagotomy and gastrectomy seem to aggravate this deficiency.⁸ Citrus fruits are very common offenders with figs, celery, potato peels, coconut, berries, string beans and apples mentioned with varying frequency.

Loss of a functioning pylorus in the gastrectomized patient is probably the single most important factor in bolus obstruction. In normal gastric emptying the pylorus contracts simultaneously with the antrum, allowing only small particles of food to exit into the duodenum.⁹ Without this function one can easily see how obstruction in the narrower small bowel can occur.

SUMMARY

An additional case of small bowel obstruction due to phytobezoars in a postgastrectomy patient

has been presented. It is hoped that this case report will re-emphasize the syndrome of phytobezoar obstruction in the gastrectomized patient; will cause the physician to think about this entity in his differential diagnosis of gut obstruction in the postgastrectomy patient; and most of all, will help to prevent the occurrence of this late cause of morbidity by adequately educating such patients concerning certain dietary restrictions.

The following two tables were taken from an excellent review article on the subject by Buchholz and Haisten in the April 1972 *Surgical Clinics of North America*.⁹ The first one diagrammatically illustrates the suggested sequence of events in the formation of phytobezoars.

TABLE 1

Gastric Surgery	
Billroth I and II	
Vagotomy and Gastrojejunostomy	
Vagotomy and Antral resection	
Vagotomy and Pyloroplasty	
↓	
Gastrojejunostomy	
Loss of normal pyloric function	
Low gastric acidity	
+	
Inadequate chewing mechanism	
↓	
Bolus obstruction	

TABLE 2

INSTRUCTIONS GIVEN TO POSTGASTRECTOMY PATIENTS

WARNING !!			
ORANGES	CABBAGE	BAKED POTATOES	APPLES
FIGS	BERRIES	STRING BEANS	
GRAPEFRUIT	BRUSSELS SPROUTS		

"You have recently had a surgical procedure performed on your stomach. You should soon be able to include nearly all the foods you desire in your diet.

"However, it is important that you should not eat certain foods that you have perhaps eaten in the past. Eating the foodstuffs that are listed above has been found to result in bowel obstruction (locked bowels) after one has had stomach surgery.

"Oranges should be eliminated from your diet entirely. Use orange juice only. Other foods such as grapefruit, figs, apples, string beans, Brussels sprouts, cabbage, berries and baked potato peel should be avoided unless they are properly chewed or mechanically minced."

(From the Dietetic Service, V.A. Center, Temple, Texas.)

OBSTRUCTION / Rueff

The second table contains information from the Dietetic Service of the V.A. Center, Temple, Texas." This, or a similar aid, is a convenient method of instructing postgastrectomy patients concerning dietary restrictions. ★★★

2500 N. State Street (39216)

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REASONABLE CHARGES

In making payment for services, CHAMPUS can allow only "reasonable charges" for the services provided. To determine what is reasonable CHAMPUS considers the fee that the source of care customarily charges for the particular service provided and also the fees that other sources of care in the same locale usually charge for similar services. CHAMPUS cannot pay a higher fee unless unusual effort is involved in a case. In such circumstances the source of care can submit a statement describing the unusual effort required and CHAMPUS will take this into consideration in determining the allowable payment.

Encounter under the Scanning Electron Microscope



SEM reveals changes in *E. coli* exposed to antibacterial agents

The Scanning Electron Microscope (SEM) is the only instrument which gives 3-dimensional views on a microscopic level. This permits the surface morphology of microorganisms to be observed in

detailed perspective. Changes in surface morphology of *E. coli* exposed to various antimicrobial agents are seen on the following page. An SEM photomicrograph of normal control *E. coli* appears above.



E. coli + sulfamethoxazole



E. coli + tetracycline



E. coli + cephalothin



E. coli + ampicillin

Different modes of antibacterial action — Similar changes in morphology

As part of a series of experiments,¹⁻³ strains of *E. coli* proven susceptible to each antibacterial agent were exposed to 1 MIC of the respective antibacterials for a three-hour period. Included were cell-wall-active drugs, ampicillin and cephalothin; a drug interfering with intracellular protein synthesis, tetracycline; and a chemical agent which acts by interference with para-aminobenzoic acid, sulfamethoxazole.

As seen above, elongation of the bacilli, mid-cell defects and spheroplast-like forms may be appreciated with the SEM technique. These changes in bacterial morphology were similar... regardless of the antibacterial agent used and irrespective of

its mechanism of action.

"At present, the significance of these observations in clinical infection must be considered with caution, but it is hoped that these data will stimulate a reevaluation of present concepts of the nature and role of morphological variants of bacteria exposed to a variety of antibacterial factors."²

It should be noted that no clinical conclusions can be drawn from this study, as it is not always possible to extrapolate *in vitro* data to humans.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media.** The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been estab-

lished. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate or prevent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis,

Encounter in Clinical Practice

Control of primary bacterial offenders

Antibacterial Gantanol® (sulfamethoxazole) controls susceptible strains of *E. coli* and other gram-negative and gram-positive organisms

often implicated in acute nonobstructed pyelonephritis and cystitis.

Prompt antibacterial blood and urine levels

In from 2 to 3 hours after the initial 2-Gm adult dose, antibacterial levels are present in

both the blood and urine.

B.I.D./T.I.D. dosage for around-the-clock coverage

Subsequent 1-Gm doses provide up to 12 hours of antibacterial coverage. More severe u.t.i. may require a q. 8 h. dosage regimen. Either schedule provides coverage during the waking

and sleeping hours—especially important during hours of sleep when normal urinary retention tends to favor bacterial proliferation.

Also effective in nonobstructed chronic and recurrent u.t.i.

It is not uncommon for the elderly and the debilitated to develop chronic and/or recurrent nonobstructed urinary tract infections such as pyelonephritis and cystitis. Such cases often re-

spond satisfactorily to Gantanol. The increasing frequency of resistant organisms is a limitation of usefulness of antibacterial agents including sulfonamides, especially in chronic or recurrent u.t.i.

Your Option: Tablets or Suspension

Either dosage form—the Tablets or the pleasant-tasting, cherry-flavored Suspension—can provide the dependable antibacterial activity necessary to control susceptible nonobstructed cystitis and pyelonephritis. Symptomatic improvement may usually be expected in 24 to 48 hours. The usual precautions with sulfonamide

therapy should be observed, including adequate fluid intake. Gantanol (sulfamethoxazole) is generally well tolerated with relative freedom from complications; the most common side effects are nausea, vomiting and diarrhea. Frequent c.b.c.'s and urinalyses with microscopic examination are recommended.

In nonobstructed cystitis and pyelonephritis due to susceptible organisms

Gantanol®
(sulfamethoxazole)
Basic Therapy

plastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thy-

roid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasp.) initially, then 1 Gm b.i.d. or t.i.d. depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs b.i.d. Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.



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Radiologic Seminar CXXIII: Pseudocoarctation of the Aorta

JAMES T. TRAPP, M.D.,
JOHN M. BLAKEY, M.D., and
A. JACK STACEY, M.D.
Tupelo, Mississippi

A 48-YEAR-OLD female presented to the North Mississippi Medical Center after having sustained a fall in her own home which resulted in an injury to her right lower chest. Initial chest films revealed a fracture of the right eighth rib, a small pneumothorax, extensive subcutaneous emphysema, and an abnormal soft tissue density along the left upper mediastinum. The chest injury was treated conservatively with good result, and diagnostic studies to clarify the soft tissue mass were ordered. A lateral chest film, oblique chest films, and tomograms of the mediastinum revealed an apparent kink in the aorta distal to the area of the ligamentum arteriosum. Chest fluoroscopy demonstrated a pulsatile mass along the left upper mediastinal border.

At this point, the diagnosis of pseudocoarctation was made, and thoracic aortography for confirmation was advised. The patient had had a previous chest film at another location, approximately three years prior to this admission, which was reported to her to be negative. No previous chest films at North Mississippi Medical Center were available.

The patient was a one pack per day cigarette smoker and had a history of peptic ulcer disease and recurrent urinary tract infections. The physical examination revealed her to be well developed and well nourished, with a blood pressure of 120/90 in both arms and 130/100 in the thighs. The abdomen revealed no masses. The chest was clear to auscultation, and the extremities showed no trophic changes.

After a three week rest period, the patient was re-admitted to the hospital, at which time a thoracic aortogram was performed utilizing a right axillary approach with the catheter positioned in

the ascending aorta. The aortogram in lateral and oblique projections demonstrated a pseudocoarctation of the aorta without evidence of significant collateral vasculature. No complications from the study were experienced.

Pseudocoarctation is an anomaly of the aorta which consists of a kinking or a buckling of the aorta just distal to the site of the ligamentum arteriosum. It is possible that this is a variation of a true coarctation in which the caliber of the aorta is narrowed at the level of the ductus, but not sufficiently narrowed to produce significant alteration of the blood pressure or to result in collateral flow. The aorta is frequently dilated both above and below the narrowed area.

Another possibility to explain the occurrence of this anomaly is to consider that the aorta may become ectatic secondary to congenital changes associated with an abnormally taut ligamentum arteriosum. Characteristically, rib notching does not occur with this anomaly, and lower extremity hypotension is not a feature of this condition. The P.A. chest film frequently reveals the so-called "double knuckle" deformity of the aortic arch, and the kink itself is frequently visible on the lateral or oblique chest films. Other anomalies of the aorta such as aneurysm of the aortic sinuses and congenital cardiac anomalies may occur in association with pseudocoarctation.

The major importance of this entity lies in distinguishing it from a tumor of the lung or mediastinum. Both venous angiocardiology and thoracic aortography can be used to study the patient suspected of having pseudocoarctation. Careful evaluation of the films to exclude significant collateral circulation to the lower half of the body is important. Frequently, the left subclavian artery may be dilated significantly. The isolated condition is usually of no clinical significance and requires no treatment. ★★★

Sponsored by the Mississippi Radiological Society. From the Department of Radiology, North Mississippi Medical Center, Tupelo, Miss.

835 S. Gloster Street (38801)



Figure 1. P.A. chest film showing a small right pneumothorax, a right eighth rib fracture, subcutaneous emphysema, and an abnormal soft tissue density along the left upper mediastinum.



Figure 2. Lateral chest film showing a faintly discernible kink in the aorta and no evidence of mediastinal mass.



Figure 3. Lateral aortograms showing a kink in the aorta and no evidence of significant collateral circulation.



Figure 4. Oblique aortogram showing to better advantage a kink in and elongation of the aorta distal to the ductus area.

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The President Speaking

“The Health Care Crisis” (?)

CHARLES R. JENKINS, M.D.

Laurel, Mississippi

FOR A GREAT MANY years the American public has been subjected to an increasing barrage of pronouncements from politicians, social reformers, segments of organized labor, and professional “do-gooders” as to the serious crisis in the health care of our people. They have complained about the quality of health care, the absence of availability of adequate care to many segments of our population, and the exorbitant costs of health care. They cite figures comparing our infant mortality with countries such as Sweden and The Netherlands where the infant mortality rate is indeed lower than in the United States of America. They emphasize the alarming rate of increase in health care costs and argue that the federal government is the only agency that can afford to bear this burden. Let us look at some of these allegations from a practical point of view and determine how many of them are true.

Firstly, the facts do not bear out the statement that a “health care crisis” does exist. Our mortality rates are the lowest in the world for infectious diseases—dread diseases such as pneumonia, tuberculosis, typhoid fever, malaria and the like were once major causes of death in our country. Now they form an insignificant percentage of our mortality rates.

In 1900 the life expectancy at birth was 49 years—in 1970 it is more than 70 years. Death rates from all diseases in these United States dropped 20 per cent in the past 20 years. Is this evidence of a “health care crisis”? The infant mortality rate in 1900 was over 100 per thousand—today it is about 19 per thousand. Countries which have a lower infant mortality rate are much smaller countries with a homogenous population. Some of these countries allow abortion to prevent the birth of a poorly developed fetus and some do not record the births of infants who do not live a minimum period of time or attain a minimum weight requirement.

The high cost of health care is another argument put forth by these proponents of socialized medicine and it is true that health care costs have increased at an alarming rate. This is part of the serious inflationary trend in the last decade and a half. Physician fees have risen, but at almost the same rate as increases in other wages, and, too, the physician does not have the benefit of paid vacations, retirement funds, insurance plans and the like which in industry is usually borne by the employer. So the average wage earner can keep more of his increased wages than the physician can.

Hospital costs have gone up more rapidly than other medical costs, but this is due mainly to increased wages for hospital employees. Labor accounts for approximately 70 per cent of a hospital's overhead, compared to about 28 per cent in industry.

The middle income American family spends approximately 7 per cent of its annual income for medical care—about the same as it spends for recreation; one-third of what it spends for food

(Turn to page 18)

JOURNAL OF THE
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EDITORIALS

Report of the Delegates to AMA

Cincinnati Clinical Convention. The AMA House of Delegates met for a total of 8 hours and 55 minutes and acted on 59 reports and 65 resolutions during the 26th clinical convention, Nov. 26-29, 1972.

The major issue was the recently passed legislation, H.R.1, which authorized professional standards review organizations. The House voted for the AMA to "provide a dominant role of leadership in the implementation of the PSRO program to assure that the best interests of the public and the profession are preserved." An Advisory Committee on Professional Standards Review will be created by the Board of Trustees to help provide input from the medical profession in development of PSRO regulations; to help constituent societies set up PSROs; and to aid in defining appropriate geographic boundaries.

In his presidential address, Dr. Carl A. Hoffman of Huntington, W. Va., emphasized the problems of inadequate catastrophic illness insurance coverage and maldistribution of physicians and reported on his recent trip to England, Sweden, West Germany and the Soviet Union. He was impressed that health care problems, especially maldistribution which limits access to medical care for some citizens, were similar to those in the U. S. despite vastly different economic, political and cultural conditions.

Recent budget restraints recommended by the Board of Trustees were approved by the House, including termination of four councils and six committees. Further economizing resulted in making specialty journals available on subscription only, beginning Jan. 9. The *JAMA* and *Prism*,

the AMA's new socioeconomic publication, will be sent as membership benefits.

Delegates voted to limit terms of trustees to two 3-year terms. The matter was referred to the Council on Constitution and Bylaws for further study and recommendations.

In adopting a report dealing with new federal regulations in regard to blood collection and distribution, the House recommended that operating standards of the American Association of Blood Banks and the American Red Cross be recognized and accepted; that physicians be represented on any national panel set up to advise on procurement or use of blood, and that programs to increase voluntary blood donation be encouraged.

The Council on Long Range Planning and Development will be expanded to include one intern and resident member of the AMA as a full voting member, and for the first time, a medical student took his seat in the House of Delegates. The House set annual dues for student AMA members at \$15.00.

Delegates were informed that an Internal Revenue Service ruling which barred physicians from withdrawing voluntary contributions to their Keogh Law plan prior to disability or age 59½ will be revised to permit withdrawal of such contributions made to a qualified plan prior to Mar. 6, 1972. The AMA had strongly protested the ruling, and the House complimented AMA staff for its "prompt and effective action."

The House selected Dr. George Hoyt Whipple, winner of the 1934 Nobel Prize in medicine, to receive the Distinguished Service Award of the AMA at the 1973 annual meeting in New York.

EDITORIAL / Continued

Dr. Whipple, now 94, won the Nobel Prize for his work in pernicious anemia, particularly in the use of liver in treatment. He was also recognized for founding the University of Rochester School of Medicine and Dentistry.

Leslie Townes (Bob) Hope will receive the Layman's Citation for Distinguished Service in recognition of his contributions to the Eisenhower Medical Center in Palm Springs, Cal., including its 80-acre site, which total nearly \$1.5 million. Mr. Hope has also staged fund raising dinners which have brought another \$3.5 million to the center.

The House recognized Dr. C. D. Taylor of Pass Christian, retiring delegate from the MSMA, and commended him for loyal and outstanding service.

Dr. William E. Lotterhos of Augusta, Ga., former speaker of the MSMA House of Delegates, was elected chairman of the AMA Council on Scientific Assembly.

(This report was prepared by Dr. G. Swink Hicks of Natchez, Delegate to AMA.) ★★★

Congress on Medical Education Set

The 69th annual Congress on Medical Education is set for Feb. 9-11 at the Palmer House in Chicago.

The congress is presented by the Council on Medical Education of the AMA in collaboration with the Association for Hospital Medical Education, Association of Schools of Allied Health Professions, Federation of State Medical Boards of the United States and the Student American Medical Association.

For further information and registration forms, write the Secretary, Council on Medical Education, AMA, 535 North Dearborn Street, Chicago, Ill. 60610.

USPHS Eliminates Yellow Fever Requirement

On Nov. 9, the United States Public Health Service announced the elimination of yellow fever vaccination requirements for travelers entering the United States. However, the USPHS continues to recommend yellow fever vaccination for the protection of all U. S. travelers going to areas reporting cases, according to Dr. Durward Blakey,

director of Preventable Disease Control, Mississippi State Board of Health.

Yellow fever is endemic in South America and Africa in areas approximately 15° above and below the equator. In South America, the disease is primarily Jungle Yellow Fever. A total of 22 cases have been reported from the deep interior of Venezuela since late June, 1972, after a five-year period with no reported cases. Brazil, Colombia, Bolivia and Peru continue to report a few cases each year. In Africa, the only two countries that reported yellow fever in 1971 were Angola and Zaire. Angola reported 65 cases with 42 deaths, after at least 20 years with no reported cases, and Zaire reported two fatal cases after quiescence for approximately 10 years.

The elimination of the yellow fever vaccination requirement by the United States follows the elimination of vaccination against cholera on Dec. 12, 1970, and the restricted requirement of vaccination against smallpox on Nov. 19, 1971. The only vaccination now required by the United States from persons arriving from international travel is that of smallpox, and this only when the traveler has been in a country reporting smallpox within the preceding 14 days.

PRESIDENT / Continued

and alcohol; and one-half of what it spends for transportation. Is this too high a price for health care in a nation where 98 per cent of the population is within a 25 mile radius of a major health facility—and where that care is personal, private, and of the highest quality? ★★★



"We ran out of face masks."



PERSONALS

CLYDE R. ALLEN, JR., and Mrs. Allen, formerly of Jackson, were honored by Dr. and Mrs. C. D. BOUCHILLON and PHIL NELSON with a party at the Laurel Country Club. Dr. Allen has recently associated with Drs. Bouchillon and Nelson.

RICHARD C. BORONOW of Jackson has been named to the editorial boards of two new ob-gyn publications. He will serve as editor of abstract and editorial comment sections for "Gynecologic Oncology" and as one of six associate editors for "Contemporary OB-GYN."

RICHARD H. CLARK of Hattiesburg has been named co-chairman of the Emergency Medical Services Committee of the State Health Planning Council.

IRA LAMAR COUEY has associated with J. P. McLAURIN and WILLIAM HENDERSON of Oxford for the practice of obstetrics and gynecology. Their offices are located at 2200 South Lamar Boulevard.

THOMAS GANDY of Natchez gave a slide presentation of renovation projects underway at the Natchez Historical Society meeting. He is chairman of the Natchez Historical Preservation Committee.

A. R. HARRIS of Tupelo has been appointed coordinator for the new emergency room program at North Mississippi Medical Center.

M. E. HINMAN of Vicksburg has been elected to the Board of Directors of the Vicksburg and Warren County Historical Society.

W. L. JAQUITH of Whitfield was a speaker on narcotics for the regional training session in New Orleans for law enforcement officers from Louisiana, Mississippi, Arkansas, Alabama and Texas.

BEN B. JOHNSON and JOHN D. BOWER of Jackson represented Mississippi at the National Kidney Foundation's 22nd annual meeting in New Orleans. Dr. Johnson is a member and secretary of the National Medical Advisory Council and Dr. Bower was on the program.

S. KIMBLE LOVE of Vicksburg has been elected to fellowship in the American Academy of Pediatrics.

CHARLES A. MARASCALCO of Vicksburg has been elected president of the West Mississippi Medical Society. Other new officers are FRANK T. McPHERSON, vice president, TOM MITCHELL, delegate to MSMA, and KARL W. HATTEN, alternate delegate.

JOHN A. McLEOD, III, of Hattiesburg assumed the presidency of the General Alumni Association of the University of Southern Mississippi during homecoming weekend.

ROBERT H. MIDDLETON, JR., of Biloxi has been elected president of the Coast Counties Medical Society. GEORGE W. BYRNE of Pass Christian was elected vice president and J. HURD GADDY of Gulfport is secretary-treasurer.

S. RAY PATE of Jackson has been elected to membership in the Southern Psychiatric Association.

DAVID D. RICHARDSON of Louisville has been named chairman of the board of trustees of the Winston County Community Hospital and Nursing Home.

ROBERT M. RITTER of Whitfield spoke on drug abuse to the Denman and Gibson PTA meeting in McComb recently.

JORGE A. RODRIGUEZ announces the removal of his medical offices from Raleigh. He now has offices at 203 Medical Arts Building in Jackson.

CHARLES G. STOCKARD, JR., has associated with the Marshall County Hospital in Holly Springs. Dr. Stockard is certified by the American Board of Surgery and is a fellow of the American College of Surgeons.

GUY VISE, JR., of Jackson was guest speaker at the 141st semiannual meeting of the Clarksdale and Six Counties Medical Society. Dr. Vise spoke on "Orthopedic Rehabilitation of the Stroke Victim."

WILLIAM A. WHITTAKER, JR., has located in Oxford for the practice of pathology at Oxford-Lafayette County Hospital.

NOEL C. WOMACK, JR., of Jackson has been named chairman of the 50-member Governor's Committee on Children and Youth by Gov. Bill Waller. Other physician members include FRANK WIYGUL, BLAIR BATSON and BUREN S. SMITH, all of Jackson.



DEATHS

MOBARAK, MOHAMED, Jackson. M.D., Cairo University, Cairo, Egypt, 1958; interned Cairo University Hospital, Cairo, Egypt, one year; cardiology and internal medicine residency, same, April 1959-April 1961; clinical pathology residency, Kingston General Hospital, Kingston, Canada, June 1969-August 1970; died Nov. 1, 1972, age 39.



NEW MEMBERS

SIMPSON, TOMMY T., Ripley. Born Ripley, Miss., April 1, 1945; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1971; interned Baptist Medical Center, Birmingham, Ala., one year; elected by North Mississippi Medical Society.

SPENCER, WILLIAM A., Sardis. Born New Albany, Miss., May 7, 1945; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1970; interned Charlotte Memorial Hospital, Charlotte, N. C., one year; general surgery residency, V.A. Hospital, Memphis, Tenn., July 1, 1971-June 30, 1972; elected by North Mississippi Medical Society.

SPRAGINS, WILLIAM H., Tutwiler. Born Greenville, Miss., Nov. 20, 1945; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1971; interned Baptist Memorial Hospital, Memphis, Tenn., one year; elected by Clarksdale & Six Counties Medical Society.

TAYLOR, HORTON G., JR., Ripley. Born Vardaman, Miss., June 29, 1940; M.D., Emory University School of Medicine, Atlanta, Ga., 1966; interned Kings County Hospital, Brooklyn, N. Y., one year; surgery residency, Grady Memorial Hospital, Atlanta, Ga., July 1, 1967-June 30, 1968; surgery residency, Brooke General Hospital, Ft. Sam Houston, Tex., Sept. 1, 1969-May 30, 1971; elected by North Mississippi Medical Society.

WATKINS, HORACE CLEMENT, III, Laurel. Born Quitman, Miss., July 16, 1939; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1964; interned Mobile General Hospital, Mobile, Ala., one year; urology residency, University

Medical Center, Jackson, Miss., Oct. 16, 1967-Oct. 16, 1971; elected by South Mississippi Medical Society.



POSTGRADUATE CALENDAR

THE MISSISSIPPI POSTGRADUATE INSTITUTE IN THE MEDICAL SCIENCES

Jan. 22-26, 1973

GASTROENTEROLOGY INTENSIVE COURSE

University Medical Center, Jackson

Jan. 22-26, 1973, beginning at 8 a.m.

Sponsored by The University of Mississippi School of Medicine, with the support of the Mississippi Regional Medical Program

Coordinator:

Lidio O. Mora, associate professor of medicine and chief of the division of gastroenterology, The University of Mississippi School of Medicine, and chief of gastroenterology, Jackson Veterans Administration Center

This one-week intensive course will emphasize management of conditions commonly seen in office practice. The curriculum will feature endoscopy of all kinds, particularly rectal sigmoidoscopy. Participants will attend ward rounds, lectures and seminars dealing with daily problems.

The course is offered through the Mississippi Postgraduate Institute in the Medical Sciences, which is supported by Mississippi Regional Medical Program grant funds. Registration is limited to five Mississippi family physicians enrolled in the institute.

FUTURE CALENDAR

January 22-26, 1973

GASTROENTEROLOGY INTENSIVE COURSE

March 7

RENAL SEMINAR

March 8-9

OBSTETRICS AND GYNECOLOGY COURSE (TENTATIVE)

April 23-27

RADIOLOGY INTENSIVE COURSE

April 30-May 3

MISSISSIPPI STATE MEDICAL ASSOCIATION, BILOXI



Book Reviews

Synopsis of Pathology, Eighth Edition. By **W. A. D. Anderson, M.D., and Thomas M. Scotti, M.D.** 1,076 pages with 430 illustrations and 3 color plates. St. Louis: The C. V. Mosby Company, 1972. \$13.95.

The new eighth edition continues the same high degree of excellence that has characterized the previous editions. It maintains the basic purpose of the synopsis as set forth in the original edition, that is, to present the subject of pathology in a clear, concise manner that is neither too superficial nor too extensive, as a full text or reference work.

Most chapters have been subjected to some revision to reflect the rapid changes in concepts resulting from new techniques and research, especially in the areas of immunology, genetics, and electron microscopy. This edition, as in all previous editions, is adequately illustrated with replacement of some of the older pictures and the addition of others, including a few electron micrographs.

The greatest usefulness of the synopsis would appear to be to the student or practitioner in need of a short review in the general subject of pathology without an extensive investigation into any specific area. The volume should be particularly valuable to anyone preparing for examinations, such as state or specialty boards.

THADDEUS S. RODDA, M.D., Clarksdale, Miss.

Current Pediatric Diagnosis and Treatment, Second Edition. By **C. Henry Kempe, M.D., Henry K. Silver, M.D., and Donough O'Brien, M.D.** 1,008 pages with illustrations. Los Altos, Cal.: Lange Medical Publications, 1972. \$12.00.

When one sees a paperback edition of a book, the immediate impression is that it is a synopsis, but I believe in this case the book is in paperback to keep publication costs down. This book is very complete in what it does; that is, give current thoughts as to diagnosis and treatment in children without a great deal of theory. I was not familiar with the first edition; therefore, I do not know how much revision has taken place.

This book is very impressive in what it tries to do. For instance, in how many textbooks on pe-

diatrics does one see a section with tips on feasting ticks, imbedded fish hooks, splinters under nails, gum in hair, etc.?

When one reads or refers to a book such as this, it must be remembered that there are other opinions as to treatment of disease. I felt that the section on coagulation disorders was particularly good. The chapter on interpretation of biochemical values is the best I have read anywhere in such a concentrated form.

In my opinion, this book was written for the practicing physician who cares for children and I shall not be without one again.

S. KIMBLE LOVE, M.D., Vicksburg, Miss.

Emergency Care Course Slated

The eighth annual course on emergency aid and transportation of sick and injured persons sponsored in New Orleans by the American Academy of Orthopaedic Surgeons will be held March 7-9, 1973, at the Fontainebleau Motor Hotel.

Invited to attend the three-day course of lectures and demonstrations are ambulance attendants, policemen, firemen, nurses, members of volunteer rescue squads, and others who work with those requiring emergency first aid attention.

Directing the course is Dr. Raoul P. Rodriguez, Jr., associate clinical professor, Division of Orthopaedic Surgery, Tulane University medical school.

Faculty members of the Tulane University School of Medicine, members of the New Orleans Police and Fire departments, and others will lead work practice sessions on the best ways of evaluating, treating, removing, and transporting the public in a wide variety of emergency medical situations.

The New Orleans course will be given in cooperation with the Tulane medical school, the New Orleans Police and Fire departments, Louisiana Trauma Committee of the American College of Surgeons, Louisiana State Medical Society, and New Orleans Chapter, American Red Cross.

For information contact Dr. Raoul P. Rodriguez, Jr., 4324 Veterans Boulevard, Metairie, La. 70002.

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UMC Recruits Minority Students

The University of Mississippi School of Medicine is mounting a recruitment program aimed at minority and other disadvantaged students to boost physician numbers in the state's critical shortage areas.

School of Medicine dean Dr. Robert E. Blount announced that a \$50,000 grant from the U. S. Department of Health, Education and Welfare will fund the program's first year, Sept. 1, 1972, through June 30, 1973.

Primary thrust will be at predominantly black colleges in the state. A director of special education, as program head, will work closely both with pre-med advisors and students at these institutions. He will serve as consultant on health field opportunities, how to apply, register and secure scholarships and loans.

The grant to the Mississippi medical school is one of 54 awards totaling almost eight million dollars to medical, veterinary and pharmacy schools in 26 states, Dr. Blount added.

EEG Society Calls for Papers

The American Electroencephalographic Society will hold its annual meeting June 15-16 at the Statler Hilton Hotel in Boston. The program committee, through its chairman, Dr. Robert Young of Mass. General, has issued a call for papers to be presented at the meeting.

Abstracts for free communications must be received by April 1, 1973. Instructions for submitting abstracts and forms may be procured from: Mrs. Margaret H. Henry, Executive Secretary, The American EEG Society, 36391 Maple Grove Road, Willoughby Hills, Ohio 44094.

Memphis RMP Funds Tupelo Stroke Unit

Some \$30,000 from the Memphis Regional Medical Program will go toward setting up a stroke rehabilitation unit in the North Mississippi Medical Center at Tupelo.

Announcement of the funds for the 10-bed unit was made along with other new health care projects in the Mid-South totaling more than \$400,000. The projects were approved at a recent meeting of the agency's Regional Advisory Council for the five states in the region.

Plans for the stroke rehabilitation unit call for a staff of one full time Registered Nurse and one part-time Registered Nurse, one Licensed Practical Nurse, three aides, a secretary, physical therapist and physical therapist assistant.

The unit will share an existing nurses' station in order to minimize costs and give the most coverage. Total cost of the project is estimated at \$59,000 with the balance of funds to come through the Mississippi Regional Medical Program. The proposal has been through the Mississippi RMP and has high priority, officials said.

Among other new funds approved at the recent high level meeting was \$15,000 to assist the Comprehensive Health Planning (CHP) agency in northwest Mississippi, \$20,000 for the Mississippi State CHP office to develop long-range plans: health screening projects in northeast Mississippi (\$60,500); a series of cardiac clinics in north Mississippi (\$12,979); an inservice education project for nurses throughout the region (\$34,527); a program to improve use of nursing skills in the Mid-South (\$45,044); and a hypertension control project in DeSoto and Tate counties in Mississippi (\$43,829).



MEDICAL ORGANIZATION

Muscular Dystrophy Association Will Open Clinic at University Medical Center

A clinic sponsored by the Mississippi Chapter of Muscular Dystrophy Associations of America will be officially opened the first of February 1973 at the University of Mississippi Medical Center, Jackson.

The clinic will be operated as a part of University Hospital services. Staff will include neurologists, orthopedic surgeons, geneticists, pediatricians, and physical therapists.

The new facility will provide outpatient care for Mississippi muscular dystrophy victims, as well as inpatient care where indicated for diagnosis. Physicians may make referrals to the clinic or by writing MDAA, 333 North Mart Plaza, Jackson 39206 or by calling (601) 366-5211.

The clinic's opening was announced by Mrs. Bill Waller, state honorary chairman, and Mr. Ben Duckworth, president of the Mississippi chapter. In describing its function and purpose, Mrs. Waller said: "The clinic will not only provide needed treatment facilities, but will also serve a research function. For instance, it may be used for the observation and study of the disease process, for testing new drugs and for developing new methods of therapy."

Muscular dystrophy, they noted, is one of the most mysterious diseases known to medical science. Its cause has yet to be conclusively determined. At present, there is neither a cure nor an

effective treatment. Victims of the crippling disease retrogress in a relatively few years from partial disability to almost total infirmity. There are some 250,000 known muscular dystrophy victims in the United States, two-thirds of whom are children.

In an effort to find a medical solution for the problem of muscular dystrophy in the shortest possible time, MDAA supports a comprehensive scientific research program in leading institutions in this country and abroad. The association also sponsors the Institute for Muscle Disease, a \$5,000,000 research center in New York City, where intensive studies into all neuromuscular diseases are being conducted.

"Establishment of more muscular dystrophy clinics," Mrs. Waller said, "will certainly be a valuable asset to this research effort. Findings of physicians, based on personal observation and treatment of dystrophics, will be recorded, evaluated and integrated with the overall research picture."

Mr. Duckworth pointed out that successful operation of the Mississippi clinic will depend in large measure on the participation of the Mississippi chapter whose members will be called upon to provide transportation and other supplementary services for patients.

Tri-State Thoracic Society Meets

Chest specialists and other interested physicians from Mississippi, Louisiana and Alabama will meet in Biloxi at the Biloxi-Sheraton Hotel on Friday, Jan. 5 and Saturday, Jan. 6, for the 17th Annual Tri-State Thoracic Society Consecutive Case Conference. Dr. G. Boyd Shaw of Jackson, president, Mississippi Thoracic Society, will head the delegation of Mississippi physicians hosting this scientific meeting.

Sponsors of this annual session designed to serve as a postgraduate training opportunity for interested physicians, residents and interns are the Thoracic Societies and Tuberculosis and Respiratory Disease Associations of Mississippi, Alabama and Louisiana.

Members of the Mississippi Thoracic Society featured on the program during the two-day session include Dr. Joe Norman, Dr. Walter Treadwell and Dr. Guy Campbell, all of Jackson, and Dr. Warren C. Miller and Dr. Charles C. Maffett of Biloxi. Dr. Treadwell will also serve as moderator for one of the three scientific sessions.

Guest discussants at the conference will be Dr. Joseph H. Bates, professor of medicine, University of Arkansas, Little Rock; Dr. Charles E. Eastridge, associate professor of surgery, University of Tennessee, Memphis, and Dr. Robert Renner, assistant professor of radiology, State University of New York, Syracuse.

Other program participants include Dr. Ben M. Grimes and Dr. Bayard Tynes, both of Birmingham, and Dr. Thomas Williams, Dr. Morton Brown, Dr. Dean Ellithorpe, Dr. Howard Buechner, W. Brooks Emory and Dr. Hurst Hatch, all of New Orleans.

A wide variety of medical and surgical topics will be presented. Included among the topics for discussion are "Fungal Therapy Dilemmas," "A General Hospital Concept for the Treatment of Tuberculosis," "Patients with Needle Pleural Biopsy," "Diffuse Nodular Diseases of the Lung," "Household Pneumoconiosis," "Hilar Adenopathy in Young Adults" and "Complications Occurring During Continuous External Ventilatory Support."

Physicians interested in advance copies of the program and registration information are requested to write P. O. Box 9865, Jackson, Miss. 39206.

Rondomycin[®] (methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines

WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**

Usage in pregnancy. (See above **WARNINGS** about use during tooth development.)

Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The antianabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal diseases, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis, inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands, no abnormalities of thyroid function studies are known to occur.

USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: In uncomplicated gonorrhea, when penicillin is contraindicated, "Rondomycin" (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of "Rondomycin" (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.

In streptococcal infections, a therapeutic dose should be given for at least 10 days. **SUPPLIED:** "Rondomycin" (methacycline HCl) 150 mg and 300 mg capsules, syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 12/71



WALLACE PHARMACEUTICALS
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1973 MSMA-Robins Award Is Announced

The twelfth annual Mississippi State Medical Association-Robins Award for outstanding community service by a state physician has been announced to the component medical societies by the Board of Trustees. The 1973 award will be presented at the 105th Annual Session during closing ceremonies on May 3.

Dr. Charles R. Jenkins, president, and Dr. J. T. Davis, chairman of the Board of Trustees, said that each component medical society had been invited to submit a nomination for the honor. The award is cosponsored annually by the association and the A. H. Robins Company of Richmond, Va., a long-established manufacturer of ethical pharmaceuticals.



MSMA-Robins Award

Drs. Jenkins and Davis said that nominees must be members of the state medical association and that the community service recognized by the local society's nomination must be apart from purely professional attainment, since suitable awards in this connection already exist.

Generally, the service by the physician-nominee should have benefitted the local or state communities in a civic, cultural, or general economic sense. It need not, however, have been a single achievement, since many outstanding citizens contribute to community betterment through a series of services in varying leadership roles.

Nominations should be made by letter, and there are no restrictions upon length or attached exhibits which assist in establishing the nominee's qualifications and record of achievement. Drs. Jenkins and Davis said that each letter of nomination must be signed by an officer of the component medical society.

Deadline for submission of nominations to the state medical association is March 1, 1973. Each nomination will be acknowledged, and the Board of Judges, consisting of the three MSMA vice presidents, will review the nominations in March.

The Robins series was instituted in 1962, and the award consists of a sculptured bronze plaque in *bas* relief, engraved, and mounted on a mahogany panel.

The 11 Mississippi physicians who have received the high honor are Dr. Thomas G. Ross of Jackson, nominated by the Central Medical Society in 1962; Dr. Frank M. Davis of Corinth, by the Northeast Mississippi Medical Society in 1963; Dr. Howard A. Nelson of Greenwood, by the Delta Medical Society in 1964; and Dr. Maura J. Mitchell of Ellisville, by the South Mississippi Medical Society in 1965.

Dr. J. T. Davis of Corinth, by the Northeast Mississippi Medical Society in 1966; Dr. Frank M. Acree of Greenville, by Delta Medical in 1967; Dr. W. H. Anderson of Booneville, by Northeast in 1968; Dr. Omar Simmons of Newton, by the East Mississippi Medical Society in 1969; Dr. W. J. Aycock of Calhoun City, by the Northeast Society in 1970; Dr. Walter H. Rose of Indianola, by Delta Medical in 1971; and Dr. Reginald P. White of Meridian, by the East Mississippi Medical Society in 1972.

Psychotropic Drugs Publication Released

An updated and expanded edition of *Psychotropic Drugs and Related Compounds*, a comprehensive listing of more than 1,200 compounds with psychoactive properties and information about their chemical structure, pharmacologic activity, and therapeutic classification, is now available.

The publication was prepared by the Psychopharmacology Research Branch of the National Institute of Mental Health, a component of HEW's Health Services and Mental Health Administration.

The 800-page second edition contains changes in the designation of psychotropic action, as well as new data on compounds and new types of information such as combination drugs, line notations, and assay references.

As in the first edition, compounds are arranged by chemical structure and have been placed in the first applicable classification section, using their generic name as the major entry whenever possible. An attempt has been made to include every synonym or trade name ever published in connection with each drug.

Psychotropic Drugs and Related Compounds (Second Edition) is Public Health Service Publication No. (HSM) 72-9074. Copies can be ordered from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402, for \$7.50 a copy.

State Moves Forward in Pollution Control

Dr. Hugh B. Cottrell, State Health Officer, has announced a "milestone" for the State Board of Health in the area of water and pollution control operations throughout Mississippi.

"The presentation of certificates to 33 Mississippi water and pollution control operators this month is a first for the state," Dr. Cottrell stated, "and one that we are proud of at the Board of Health."

According to Joe D. Brown, director of Sanitary Engineering, State Board of Health, 20 water operators and 13 pollution control operators will be presented certificates during district meetings.

"These operators have responsible jobs as they are involved in many phases of water supply and waste disposal," Brown said. "The production, treatment, and distribution of water are all important and require highly skilled people if a quality program is expected."

The Mississippi Water and Pollution Control Operators Association, Inc., formed by the operators themselves, has been instrumental in working out certification procedures. This organization is an outgrowth of a week-long course offered annually at Mississippi State University where operators attend lectures, prepare lessons, work in the lab and at the end of the week take a written examination.

Sponsors of this new organization and its work include the State Board of Health, the Miss. Air and Water Pollution Control Commission, and the Civil Engineering Department at MSU.

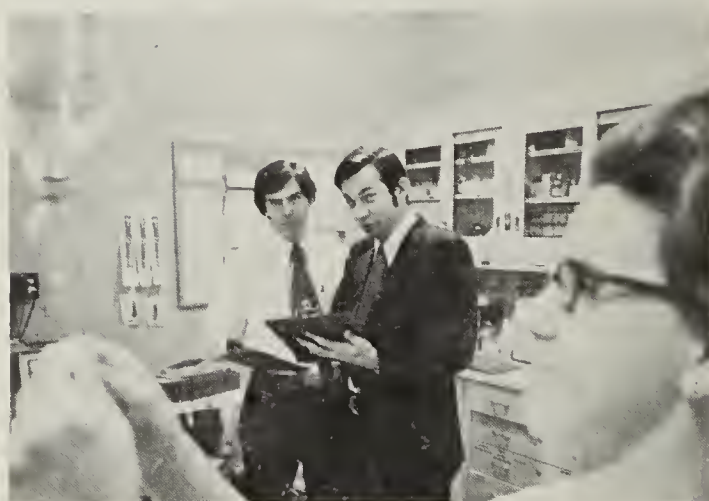
A Board of Examiners was set up by the association with Brown serving as chairman, and Glen Wood, Jr., director of the Miss. Air and Water Pollution Control Commission, co-chairman.

"The purpose of this board is to recommend specific guidelines for certification according to categories," Brown said.

There are four classes or divisions designated for water and pollution control operators—D, C, B, and A classifications for water, and 1, 2, 3, and 4 for waste water operators.

According to officials of the association and the Board of Health, class is based chiefly upon the complexity of the operation or the population of the area.

Pharmacy School Conducts I.V. Study



Tom Brown (right), assistant professor of Hospital Pharmacy, and Robert Northern, research associate, check the procedures used by Oxford nurse Mrs. Mary Marquis in administering intravenous injections, as part of a national study being conducted by the University of Mississippi School of Pharmacy. Hospitals in 17 states have been visited by research teams from Ole Miss in collecting data to be used by the National Coordinating Committee for Large Volume Parenterals to determine the problems involved in administering intravenous injections.

MSMA, AMA Sponsor Lectures in State

In cooperation with the AMA, the Mississippi State Medical Association is cosponsoring a program of seminars and a lecture in the medical sciences to be given at three universities in the state.

This program was initiated by the AMA Council on Foods and Nutrition in the fall of 1964 and is being carried out on a regional basis in 17 states.

The purpose of the lecture is to inform students and faculty of recent developments and to stimulate interest in the medical sciences. The lecturers will be on campus for the entire day to give undergraduate or graduate seminars and also to meet informally with students and faculty interested in discussing careers in medicine and related fields.

Dr. Coy D. Fitch, associate professor of internal medicine and biochemistry, St. Louis University School of Medicine, will speak on "Vitamin E—Who Needs It?" Dr. Fitch will be at Mississippi State College for Woman at Columbus on

Feb. 27 and Mississippi State University at Starkville on Feb. 28.

Dr. Milton E. Rubini, professor of medicine, University of California at Los Angeles, will discuss "Facts and Fancy About Salt Water and Thirst" at the University of Southern Mississippi at Hattiesburg on Feb. 6.

UMC Hosts Southeastern Perinatal Conference

A Southeastern States Perinatal Conference was held at the Medical Center Holiday Inn in Jackson Nov. 20-22, 1972.

Aimed at structuring a regional plan for upgrading maternal and infant care in the Southeast, the conference had a two-pronged thrust, neonatology and nurse-midwifery.

The departments of obstetrics and gynecology and pediatrics of the University of Mississippi Medical Center served as conference hosts with the cooperation of the UMC Continuing Education Committee.

Coordinators for the neonatology sessions were Dr. A. W. Brann, Jr., Mississippi, Dr. George Cassady, Alabama, and Dr. Don Eitzman, Florida.



Among neonatology speakers were, from left, Dr. Donald Eitzman of the University of Florida, Ms. Dorothy Hall of the UMC newborn center, Dr. Leo Stern of Montreal Children's Hospital, Canada, and Dr. John E. Rawson of the University of Mississippi School of Medicine.

Concurrent and shared sessions combining nurse-midwives, obstetricians, neonatologists and nurse specialists, consultants, keynote speakers and auditors were held during the three-day meet.

Sponsoring organizations were the Maternal-Child Health Service, Health Services and Mental Health Administration, HEW, and the Mississippi Regional Medical Program.

17 million people need you for just 60 days It won't be easy.

South Viet Nam has approximately 120 civilian hospitals with an estimated 25,000 beds. Patients are two and three to a bed in provincial hospitals. Approximately 50,000 civilians are treated every year for war-related injuries. Communicable diseases include tuberculosis, typhoid fever, bacillary and amebic dysentery, parasitism, cholera, plague, smallpox, leprosy, and trachoma. Seeing 90 patients a day isn't uncommon. And somehow, you'll have to squeeze in some teaching.

For this you should leave your wife, family and comfortable home, drop your practice commitments, and travel around the world? Even if it's just for 60 days?

900 physicians have. Many have even returned for 2 or more tours.

When asked "why", we got a universal response. A smile. A shrug. And a phrase -- "it's the most positive major life experience I've ever had."

Volunteers needed now are family practitioners, internists, pediatricians, general and orthopedic surgeons, anesthesiologists, ophthalmologists, otolaryngologists, radiologists, physical and preventive medicine specialists.



How about you?
For more information write:

Program Director
Volunteer Physicians for Viet Nam
American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610

Two Are Added to Medical Center Faculty

Dr. Michael E. Jabaley and Edward R. North joined the University of Mississippi School of Medicine faculty this fall.

Dr. Jabaley is surgery associate professor and chief of the plastic surgery division, the first full-time faculty member in this position. A Vanderbilt University graduate, he earned the M.D. degree at Johns Hopkins University School of Medicine, where he also interned and served a residency. The surgeon also did a residency at Massachusetts General Hospital. Prior to his Mississippi appointment, Dr. Jabaley was an associate professor at Johns Hopkins.

North was named instructor in the preventive medicine department.

Physicians Needed for Project USA

The establishment of the National Health Service Corps provides for the assignment of health professionals to areas designated by the U. S. Public Health Service as critical health manpower shortage areas. The American Medical Association was asked by the corps to provide guidance and assistance in the implementation of the program.

Now an AMA program "Project USA" has been developed to recruit volunteer physicians to fill in during the temporary absence, for vacation and other reasons, of the nearly 150 physicians serving lengthy tours with the corps. Each location where a National Health Service Corps physician is assigned has been certified as an area of critical manpower shortage by the local and state medical societies, and it is clear that the success achieved by this new program can be attributed to the cooperation received from medical societies.

"Project USA" already has requests to recruit temporary physician replacements for tours varying from two weeks to several months. The locations include Maine, Pennsylvania, Wisconsin, Colorado and Montana. It is expected that requests will be received for temporary replacements from physicians assigned throughout the United States so that they may be relieved for short periods.

"Project USA" would like to hear from licensed physicians who want to help bring medical care to rural communities and inner-city areas on a short term basis.

For additional information, write to Project USA, Division of Medical Practice, AMA, 535 N. Dearborn St., Chicago, Ill. 60610.

SKF Contributes Funds to Hospitals

The Smith Kline & French Foundation now has contributed one-quarter million dollars in matching gifts to hospitals.

The quarter million dollar mark was reached when the foundation matched a contribution from William O. Bast, SK&F production director, Manufacturing Division, to Delaware County Memorial Hospital, Drexel Hill, Penn.

To mark the occasion, the foundation doubled its matching gift to the hospital, reported William L. Grala, SK&F vice president, Corporate Public Relations, who also serves as Executive Secretary of the foundation.

The foundation is a charitable trust established in 1952 by Smith Kline & French Laboratories, Philadelphia manufacturer of prescription medicines and other health-related products.

The foundation launched its matching gifts program in 1956. Through this program, the foundation matches gifts from SK&F employees to educational institutions and hospitals.

The matching gifts program is only one facet of the foundation's activities. Since its founding, the foundation has contributed more than \$13 million to charitable, educational, scientific and community programs.

The "Matching Gifts to Hospitals" program, one of the first of its kind in the United States, was established by SK&F in 1959. To receive support under the program, hospitals must be listed in the Guide Issue of Hospitals, *Journal of the American Hospital Association*, and must be located within the United States or its possessions.

Recipients may use contributions for augmenting required capital and general operating funds, providing expanded medical and surgical care for the treatment and maintenance of the sick and injured, increasing medical facilities and equipment, and improving incentives for the highest quality of professional medical care.

The foundation has matched more than 1,470 separate gifts to over 140 hospitals in the United States. In 1971, 66 SK&F employees participated in the program, contributing approximately \$26,622.

Any fulltime, permanent employee of SK&F or its subsidiaries making a contribution of \$10 or more, up to a total of \$2,000 in one calendar year, is eligible to participate in the program. SK&F directors and retired employees are also eligible.

Emergency Physicians Set Symposium Dates

Plans are being finalized for the 1973 ACEP February Symposium on "Systems in Emergency Care" which will be held at the International Hotel in Las Vegas, Feb. 7 and 8.

The program format, designed for all those who have a responsibility in emergency health care, will identify the major components of the emergency care system and show how they fit together to make the system workable. The program will feature seven nationally recognized authorities in emergency medicine who will make individual presentations and many other authorities who will participate in both panel and small group discussions.

The winter workshop, during which ACEP committees plan for the future activities of the college, will be held Feb. 9 and 10, the two days following the symposium.

Advance registration fees for the symposium are \$100 for members and \$125 for non-members.

ACEP, chartered in August 1968, is a national organization comprised of more than 3,100 licensed physicians who have a significant interest in emergency medicine. The primary goal of the association is to improve the delivery of emergency services throughout the country. The college promotes and sponsors educational programs for the benefit of all personnel, both medical and paramedical, who are part of the community emergency care team. In addition, the college serves as the voice of the emergency medical physician, promoting and advancing his professional goals.

For further information, contact: Richard T. Johnson, Director of Communications, American College of Emergency Physicians, 241 East Saginaw Street, East Lansing, Mich. 48823.

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Cardiac Emergency Course Planned

Cardiovascular emergencies will be the topic of a three-day meeting scheduled for March 1-3 at the Convention Center in Shreveport, La.

The course will be sponsored by the American Heart Association Council on Clinical Cardiology, the Louisiana State University School of Medicine-Shreveport, and the Louisiana Heart Association.

Drs. Edgar Hull and J. W. Wilson, Jr., are co-directors of the course which has been approved for 20 hours of prescribed credit by the American Academy of Family Physicians.

Topics to be discussed include rhythm disturbances, cardiac shock, hypertensive crisis, congestive heart failure, pulmonary embolism and stroke.

For further information write: Mrs. Gail Magzamen, American Heart Association, 44 East 23rd Street, New York, N. Y. 10010.

St. Petersburg Hosts Cardiovascular Seminar

The 15th Annual Cardiovascular Seminar will be held at the Sheraton-Bel Air Motor Inn in St. Petersburg, Fla., Jan. 26-27.

The seminar is presented by the Suncoast Heart Association, Hillsborough County Heart Association and the College of Medicine, University of South Florida at Tampa.

This program is approved for 12 prescribed hours by the American Academy of Family Physicians.

There will be a registration fee of \$20.00 which includes one luncheon and one cocktail party.

For registration write the Suncoast Heart Association, P.O. Box 12407, St. Petersburg, Fla. 33733.

Forensic Scientists Meet in Las Vegas

The American Academy of Forensic Sciences will hold its 25th annual meeting at the Las Vegas-Hilton, Las Vegas, Nev., Feb. 20-23.

More than 200 speakers and panelists from 35 states and from Canada, Belgium, Sweden and England will take part in the scientific and medicolegal programs being conducted by the academy's nine sections. Over 180 technical papers and topics will be presented during the four-day event which will also include the fifth annual meeting of the National Association of Medical Examiners.

Registration of the expected 1,500 scientists, lawyers, physicians, and criminalists will begin on Tuesday morning. Advanced educational workshops have been scheduled for toxicologists all day Tuesday and for pathologists and medical examiners on Wednesday—both sections have also scheduled special meetings Tuesday evening.

The academy's annual scientific exhibit, displaying developments in laboratory equipment and systems will open Tuesday morning, and the welcoming reception for all registrants is scheduled for 5:30 p.m.

The first general session, a review of the forensic sciences over the past 25 years, will be opened

Wednesday morning, Feb. 21, by Douglas M. Lucas of Toronto, president of the academy.

In addition to the academy's annual business meeting, all of the academy's sections have scheduled programs for Wednesday afternoon. Several seminars have been planned for Wednesday evening including a joint meeting on "Research in Forensic Science" with the International Association of Forensic Toxicologists. Dr. Alan S. Curry, director of the Central Research Establishment in England will be the featured speaker. "Computer Related Crimes" and "Forensic Science and the Reduction of Crime" will be two of the subjects discussed at the criminalistics meeting Wednesday evening.

Many subjects of general interest are included in the Wednesday afternoon section meetings: drug involvement and auto fatalities; the effects of methadone on driving ability; the analysis of street drugs in a college community; the Clifford Irving Hoax; a case history of two skyjackers; assaultive juveniles; identification in aircraft accidents; sudden deaths; suicides in prison and the medical and sociological aspects of rape, among many others.

The second general session will be held on Thursday morning and is entitled, "Suicide." Attorney Don Harper Mills of Long Beach, Calif. will moderate the eight presentations representing the various disciplines of the academy which will review the criminal, civil and medicolegal aspects.

Post-mortem identification will be the subject of a combined meeting Thursday afternoon of the pathology/biology, anthropology and odontology sections. The psychiatry and jurisprudence sections will also engage in a joint discussion of "The Criminal Confession" on Thursday afternoon.

Scientific papers of technical interest have also been scheduled for presentation on Thursday afternoon by the toxicology, questioned documents and criminalistics sections. The general section's program will review a new system for investigating suicide deaths, a computer system for the control of outpatient health care, new fingerprint technologies, recent trends in suicides and violent deaths, and the controversial issue of community involvement in the administration of justice.

An invitation to attend the AAFS meeting is extended to all those who practice in medicolegal and forensic science-related fields. An advance program and registration information may be obtained from Dr. James T. Weston, 44 Medical Drive, Salt Lake City, Utah 84113. Special low-cost group travel and hotel arrangements are available to Las Vegas from Boston, Hartford, New York, Philadelphia, Baltimore, Chicago, Miami and Houston for those who wish to attend.

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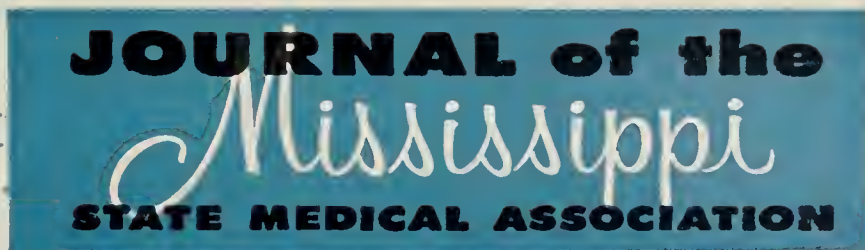


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Pinworm therapy is often a family affair



Contraindications: History of hypersensitivity to thiabendazole.

Warnings: If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.

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patients should be carefully monitored.

Adverse Reactions: Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of live *Ascaris* in the mouth and nose. Hypersensitivity reactions



ORIGINAL PAPERS

Radioimmunoassay: Current Status and Clinical Application

WILLIAM B. WILSON, M.D.

Jackson, Mississippi

RADIOIMMUNOASSAY, utilizing the principle of competitive inhibition, was first described in 1960 by Yalow and Berson.¹ They had devised the technique in order to measure insulin levels in plasma, in connection with their studies of insulin physiology. This technique has subsequently been widely applied to the study of many biological systems and is capable of accurately measuring substances which are present only in trace concentrations, as little as billionths and trillionths of a gram per milliliter (nanograms, 10^{-9} g./ml., and picograms, 10^{-12} g./ml., respectively). The main necessity is that a satisfactory antibody to the test substance be produced.

There are four basic requirements for developing a radioimmunoassay: (1) A known amount of purified test substance for standardization (unlabeled antigen); (2) Radioactively labeled test substance (labeled antigen); (3) A satisfactory antibody to the test substance; and (4) A method for separating the free from the bound antigen following incubation of antigen and antibody. The basic procedure is this: The test substance, or antigen, must be sufficiently pure to serve as the standard, and to produce highly specific antibodies to itself. A portion of the purified antigen is given a radioactive label. The radioactively labeled antigen and varying known amounts of unlabeled antigen are mixed together, and these are permitted to react with a limited amount of antibody. *The labeled and unlabeled antigens will*

attach to the antibody in direct proportion to their respective concentrations in the incubation mixture (competitive inhibition). The antibody-bound anti-

Radioimmunoassay, utilizing the principle of competitive inhibition, was devised to measure insulin levels in plasma. The technique has since been widely applied to the study of many biological systems and is capable of accurately measuring substances present only in trace concentrations. The author discusses the basic requirements and procedures and reviews currently feasible radioimmunoassays.

gen is then separated from the rest of the incubation mixture, which contains the remaining unbound ("free") antigen, both labeled and unlabeled. The amount of labeled antigen which will be in the antibody-bound fraction will depend on how much unlabeled antigen was present in the mixture, since the labeled and unlabeled antigen competed with each other for the antibody and the greater the concentration of unlabeled antigen, the less the amount of labeled antigen which will be able to attach to antibody. One then counts the amount of radioactivity in the bound fraction, and that in the unbound fraction, and expresses the results as the ratio of bound to free antigen (B/F ratio). By obtaining the B/F ratios for increasing, known amounts of pure, unlabeled

From the Department of Pathology, Mississippi Baptist Hospital, Jackson, Miss.

RADIOIMMUNOASSAY / Wilson

antigen, one can then establish a standard curve. (See Figure 1.) One then is ready to test an unknown. Using antibody, labeled antigen, and an unknown amount of antigen (i.e., the substance in a patient's serum) one repeats the above procedure, and the bound/free ratio for the test substance is determined. The amount of unknown antigen in the test sample can then be determined by reference to the standard curve previously established.

In devising a radioimmunoassay for a specific substance, there are several practical considerations to be worked out; namely, selection and attachment of the radioactive labels; selection of a satisfactory method of separating bound from free antigen; and most importantly, production of a satisfactory antibody. If these problems are solved, any substance, even in extremely small concentrations, can be measured by radioimmunoassay.

Selection of label. The best label is ^{125}I , which can be attached to a tyrosine molecule in proteins, and polypeptides. ^{125}I has a half-life of about two months, giving it a satisfactory shelf life. It emits gamma rays of good counting characteristics, permitting easy counting in an inexpensive, well-type counter. The only limitation to its use is that the substance to be measured must contain tyrosine; i.e., proteins and most polypeptides. Iodination is accomplished by the chloramine T method of Hunter and Greenwood,² in which ^{125}I is oxidized and incorporated into the tyrosine molecule, in slightly alkaline, mild conditions which do not damage the antigen molecule. The labeled antigen is then separated by passage through a Sephadex column. It is desirable to incorporate enough radioactive iodine to permit final counts in the bound and free fractions of at least 3000 per minute. However, excessive iodination may cause radioactive damage to the antigen. The labeled antigen must be tested for damage by some method such as chromatography or electrophoresis, and its specificity must be validated by showing that it will inhibit antibody-binding by pure unlabeled antigen to the expected degree.

Antigens which contain no tyrosine, and therefore cannot be labeled with iodine, may be attached as a hapten to a protein molecule, thereby permitting iodination; or they may be labeled with tritium (^3H), or possibly ^{14}C or ^{57}Co . Such substances include drugs (digoxin, digitoxin, barbiturates, morphine), steroid hormones (cortisol, aldosterone, estrogens, androgens), and glycoprotein hormones (TSH, ACTH, pituitary gonado-

tropins, and chorionic gonadotropins). Tritium (^3H) and ^{14}C are beta emitters, which require liquid scintillation counting. This form of counting is cumbersome, requires expensive equipment, and is subject to a number of problems, the solution to which involves some compromise in the accuracy of the counting. However, it is quite satisfactory, given the proper equipment, properly used. Counting beta emissions is done by placing the isotope in a fluorescent medium (scintillation fluid), which will emit a spark of light when a beta particle is released into it. The intensity of the spark of light varies unpredictably (quenching), and many artifactual sparks occur, which may vary with temperature. All of this greatly complicates the accurate counting of genuine beta emissions, and the variables must be arbitrarily corrected by application of factors based on statistical probabilities. After a patient has received Technetium 99 for an organ scan, he has significant gamma activity in the plasma for 24 hours, and thereafter has a small amount of beta activity indefinitely. If liquid scintillation counting is to be done on such plasma, the component containing the beta activity may be extracted, or a background count done on the sample before testing.

Methods of separating bound and free antigen.

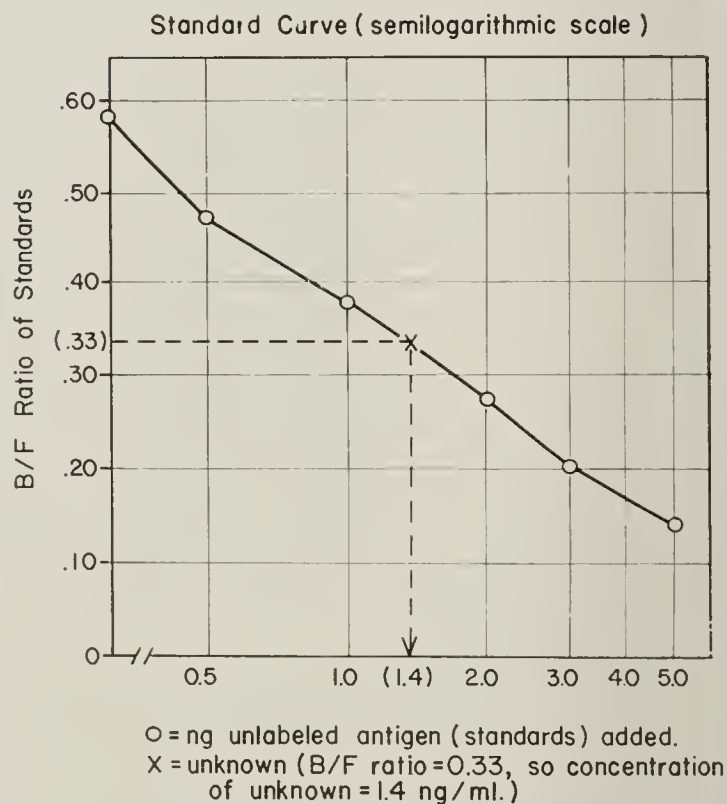


Figure 1

In many procedures, Dextran®-coated charcoal may be added to the mixture following incubation, and the unbound antigen will selectively adhere to this, which can then be separated by centrifugation. A second method, which promises to be very useful, is simply to coat the inside of a disposable test tube with antibody, to which the antigen in the incubation mixture will adhere. The liquid phase can then simply be poured off, and the liquid and tube can be separately counted. Another widely used method is the double-antibody method, in which antibodies to the antibody are produced and added to the mixture after incubation. This forms a very large complex of "double antibody" and bound antigen, which can be separated from the rest of the mixture by filtration or salt precipitation. Electrophoresis, chromato-electrophoresis, and gel filtration also can be used to separate the bound and free fractions.

Antibody production. The most important characteristic of a satisfactory antibody is *high affinity*, not to be confused with high titer. High affinity means relatively irreversible binding of antigen to antibody, so that small variations in the amount of unknown antigen will cause a distinct and perceptible change in the ratio of bound-to-free antigen after separation. Loose binding would not detect these small variations, rendering the test insensitive. Twenty-five per cent binding is considered satisfactory. Low affinity is primarily a problem with poorly antigenic substances, such as proteins or peptides of small molecular weight, and haptens. Protein or polypeptide hormones having molecular weights over 10,000 generally form good antibodies, while less satisfactory antibodies are formed by smaller polypeptides, especially those with molecular weights below 1000, as well as steroid hormones, glycoprotein hormones, and drugs. Even with conjugation, and/or use of adjuvants, the production of satisfactory antibodies in these cases is highly unpredictable, and one to two years of repetitive stimulation may be necessary. Even after this, only a few of the stimulated animals may produce good antibodies, the reason for which is not understood.

Besides high affinity, antibodies must have *high specificity* for the antigen which produced them and which subsequently is to be measured by them. Cross-reactivity with similar antigens may be a difficult problem. The glycoprotein hormones (pituitary and chorionic) are notorious in this respect. Other problems relating to specificity occur. Some substances have not been purified enough to produce specific antibodies; e.g., renin.

The antibodies may be species-specific, necessitating the use of purified human hormone rather than animal hormone for production of antibody (parathyroid hormone, growth hormone). Non-specific cross-reactivity may occur even in antibodies produced with relatively pure antigen (carcino-embryonic antigen). Many circulating hormones exist in more than one immunologic type (insulin, parathyroid hormone), and antibodies to each immunologic type must be produced in order to measure the hormone's true biologic activity in the patient's serum. Therefore, one must establish that the immunologic activity of the test substance correlates with the biologic activity (identity). Finally, there are the problems of non-specific binding of antibody to glassware, non-specific inhibition by tissue components, or enzymatic destruction of the antigen or antibody in the test system.

After an antibody has been produced, it must be validated by testing in several ways, to show that non-specific inhibition of antibody-binding does not occur. The antibody may be used in several dilutions, and if the resulting inhibition curves are parallel, it can be assumed that no non-specific binding or inhibition are occurring. Hormone-free plasma from patients with endocrinopathies may be used as a test substance, in which any detectable inhibition would be obviously non-specific.

Therefore, in evaluating commercially available radioimmunoassay kits, the manufacturer should furnish satisfactory information regarding the following: (1) Affinity. Is the antigen being tested antigenic enough to produce good antibodies? Is the test sensitive enough for clinical purposes? (2) Specificity. Was the antigen producing the antibodies sufficiently pure? Is cross-reaction minimal? Is non-specific inhibition absent? Has identity been established? (3) Stability and reproducibility of antibody. Will sufficient antibody be available for continuous clinical use? Will the antibody deteriorate upon storage? Additional questions which should be answered before suitability of a radioimmunoassay can be determined are type of label; expense of equipment required, such as liquid scintillation counting equipment, refrigerated centrifuge, fume hoods, and facilities for isotope storage and disposal; length of time required to perform the test; and whether or not the test must be available as a "stat" procedure in order to be clinically useful.

Commercially available radioimmunoassays include those for plasma renin activity (angiotensin I generation), hepatitis-associated antigen, digox-

RADIOIMMUNOASSAY / Wilson

in, digitoxin, and growth hormone; also available are assays for chorionic gonadotropin, placental lactogen (somatomammotropin), triiodothyronine, thyroxine, TSH, LH, FSH, cortisol, ACTH, and morphine.

RADIOIMMUNOASSAY REVIEW

Plasma renin activity. Renin is a proteolytic enzyme released by the kidney. It acts on a substrate of alpha globulin to produce the peptide angiotensin I, which is rapidly degraded to angiotensin II. Angiotensin II is a vasopressor, and also releases aldosterone, the sodium-conserving hormone. Plasma renin activity is measured indirectly by RIA of angiotensin I generation, since renin has not been sufficiently purified to permit antibody production for direct measurement. The direct measurement of plasma aldosterone by RIA has been accomplished only in research laboratories, as the hormone is only poorly antigenic, and satisfactory antibodies are difficult to produce. Antibodies to angiotensin I must be produced either with conjugation or by use of an adjuvant, and the antigen is labeled with ^{125}I . The test is carried out in the presence of an enzyme inhibitor, to prevent angiotensin II formation during the incubation period. Angiotensin II also can be measured by RIA, but it has a very short half life, and there is no clinical advantage to measuring it.

The RIA for plasma renin (or more exactly, plasma renin activity or angiotensin I generation) is used to detect hyperaldosteronism, either primary or secondary, but the preparation of the patient and collection of the sample is quite different for each of these. The patient should be off antihypertensive drugs before testing in either case. In the presence of *primary hyperaldosteronism*, the plasma renin activity of the peripheral blood is extremely low or non-detectable, since the autonomous production of aldosterone suppresses renin output, and measures designed to increase renin production, such as diuresis, salt depletion, or peripheral venous pooling by upright posture, cause no measurable increase of renin activity. The peripheral blood renin activity in other forms of hypertension may be high or low, but not as low as in primary aldosteronism, and the renin level in these states will increase after sodium depletion. The normal levels of peripheral blood renin are 0 to 5 ng./ml. In essential hypertension, the plasma renin in the peripheral blood may be as high as 20 and in renal hypertension as high as 30 ng./ml. Patients

on birth control pills have levels up to 15 ng./ml.

In the diagnosis of *secondary hyperaldosteronism due to renal disease*, it cannot be too strongly emphasized that the measurement of plasma renin activity in the peripheral blood is worthless, because of the variations in other forms of hypertension just described. In order to diagnose renal hypertension, the plasma renin activity must be measured in blood taken by catheter from each renal vein individually, as well as a sample of blood from the lower inferior vena cava (representing peripheral blood for comparison). The ratio of renin levels between the renal veins is obtained. This is the critical factor in diagnosing unilateral renal disease, rather than the absolute levels of renin, which may run as high as 1200 ng./ml. There is some disagreement³ as to what the diagnostically significant ratio is, but probably it is about 1.5; that is, the renin level in the vein of the diseased kidney is at least 1.5 times that in the healthy kidney. If the ratio is less, both kidneys are either diseased or healthy. Furthermore, to be certain that both kidneys are not diseased, the renin level in the venous effluent from the healthy kidney should approximate that of the peripheral blood (sample from the lower vena cava), and here it is suggested that the ratio of renin from the healthy renal vein should not exceed 1.3 times that of the vena cava blood. It should be noted that the concentration of renin in the renal vein is not necessarily an index of production of renin from that kidney, since production would equal concentration times volume. However, clinical experience has shown the above-described ratios to be satisfactory, and to correlate with other indicators of individual renal function, such as rapid-sequence urography, renograms, and creatinine excretion. High renin production should correlate with low renal blood flow and creatinine excretion, as measured by these techniques. It should be further noted that renin and these other indicators of renal function may be more reliable than arteriography in determining which kidney is diseased, since a stenotic renal artery does not necessarily mean that this kidney is the one which should be removed. The contralateral kidney may become irreversibly damaged due to the Goldblatt effect, and become the predominant source of increased renin, secondary hyperaldosteronism, and hypertension, while the kidney with the stenotic renal artery is protected from the hypertension and remains relatively normal. In such a case, the contralateral kidney would show physiologic evidence of poor blood flow and increased renin production, and its removal, plus repair of the stenosis, may effect a cure.⁴

When a patient is to undergo renal vein catheterization for detection of renal hypertension, he should be off antihypertensive drugs, and depleted of sodium. This can be accomplished by a low sodium diet for three days, plus a sodium-depleting diuretic; or the patient may be left on a normal diet, and given intravenous Lasix® four hours prior to the procedure. These measures will ensure maximum renin production. This may somewhat decrease the ratio between healthy and diseased kidney, as there will be increased production from the "healthy" kidney; however, this ensures detection of excess renin production from this kidney, which would indicate bilateral renal disease, and contraindicate surgery. Some have advocated having the patient maintain upright posture, or tilting the x-ray table prior to catheterization, but this probably is unnecessary, and a more controlled study is obtained by having the patient remain supine for four hours before the procedure.

Hepatitis-associated antigen. An RIA has been developed for this which is far more sensitive than the most popular current method, counterimmunoelectrophoresis (CEP). Overnight incubation is required. The label is ¹²⁵I. Separation is accomplished by the convenient solid phase method, or by the double antibody method. HAA is present in peak titers in patients with clinical hepatitis. Ten per cent of patients will continue to show the antigen after apparent recovery, and these patients are thought to be carriers. HAA is the coat of the Dane particle, which probably represents the DNA, and is the infectious component, but which itself apparently is not antigenic. Patients may have both HAA and antibodies to HAA in their serum, generally after receiving long-term transfusion therapy (e.g., aplastic anemia, hemophilia).

Measurement of HAA is useful not only in detecting potential transmitters of serum hepatitis among blood donors, but also is useful in the diagnosis of hepatitis. In one study of 33 patients with presumed hepatitis, 30 were positive for HAA by RIA, while only 22 were positive by CEP. There are at least two antigenic forms (immunologically distinct subtypes) of HAA, which may account for failure to detect HAA in some patients with clinical hepatitis, since they may have the antigenic form which is not being tested for.

Blood which is positive for HAA, as measured by RIA, is highly likely to transmit clinical or sub-clinical hepatitis (chemical evidence only). However, blood which is negative for HAA by RIA can still transmit HAA-positive hepatitis. In one

series, 22 per cent of patients who developed clinical or chemical evidence of hepatitis had received blood which was negative for HAA by RIA, and a small percentage of these patients then developed detectable HAA in their own blood (although they had received blood negative for HAA). Thus, it is clear that RIA is by no means foolproof in detecting blood which can potentially transmit hepatitis. Of patients receiving blood positive by RIA but negative by CEP, 36 per cent developed hepatitis, and of those receiving blood positive both by RIA and CEP, 60 per cent developed hepatitis, about two-thirds chemical and one-third clinical in severity. These figures indicate the increased sensitivity of RIA, but also indicate that 40 per cent of patients receiving RIA-positive blood will not develop hepatitis (patient resistance), and that some of the patients receiving negative blood will develop some evidence of hepatitis, usually mild (infectious agent of different immunologic type than that tested for, or concentration too low for laboratory detection, but high enough for infectivity).⁵

Digoxin-digitoxin. Antibodies of high affinity to each of these drugs have been produced. The RIA has a short incubation time, ¹²⁵I or ³H are the labels, and Dextran®-charcoal is used for separation. For the results to be interpretable, the blood sample must be obtained in relation to ingestion of the drug. In order to diagnose toxicity, the sample must be obtained exactly eight hours after an oral dose of drug. A digoxin level under 1.5 ng./ml. is almost never associated with toxicity. Eighty-five per cent of clinically toxic patients show levels over 2.0 ng./ml. The therapeutic range is considered to be 0.5-2.0 ng./ml. Therapeutic levels up to 4.0 are sometimes obtained during intensive treatment of arrhythmias. The distinctions between therapeutic and toxic ranges are less clear-cut with digitoxin.⁶ Patients receiving digitalis leaf or other digitalis preparations cannot be evaluated for toxicity by measurement of digoxin or digitoxin levels. Random samples of blood for drug levels are useful only in determining if a patient is already on the drug tested for, but not other forms of digitalis. Digoxin levels can be done on as little as 0.3 ml. of blood, permitting use of this test in infants and children, where estimation of therapeutic or toxic levels may be difficult. It should be noted that plasma drug levels bear no constant relationship to tissue levels.

Morphine and codeine. These are the breakdown products of injected heroin, but not of

RADIOIMMUNOASSAY / Wilson

methadone or nalorphene, and therefore RIA of morphine and/or codeine can be used to detect addicts. RIA of morphine is commercially available, and will probably become a widespread procedure soon. The label is ^3H , requiring liquid scintillation counting.

LESS USEFUL RADIOIMMUNOASSAYS

Parathyroid hormone. While the technical aspects of RIA of PTH have been worked out, physiologic considerations make interpretation of findings difficult, since there are at least two and probably three distinct immunologic variants of PTH in the circulation, including "big" PTH, which may be selectively secreted by parathyroid adenomas. This has led to considerable confusion as to normal limits, or degree of normal variation, although it does appear that PTH generally is elevated in primary hyperparathyroidism, whether due to chief cell hyperplasia, or to adenoma, while there is little or no measurable circulating PTH in hypoparathyroidism. The lack of identity between immunologic and biologic activity must be worked out before the RIA can become generally applicable.

Growth hormone. This is a commercially available RIA, and is fairly simple to perform, but clinical interpretation of results is not simple, in that the exact role of growth hormone is poorly understood. The continued secretion of GH after full growth stops suggests that it has a continuing physiologic role. Sulfation factor (somatomedin) is a necessary peripheral intermediary effector, which is absent in African pigmies. In the diagnosis of either pituitary dwarfism, or acromegaly, the growth hormone should first be measured following a stimulus, since resting levels vary considerably and overlap with normal levels. In acromegaly, the growth hormone level rises abruptly following injection of a small dose of insulin. In dwarfs, exercise may be used as a stimulus, which will provoke no rise in pituitary dwarfs. If either screening test is positive, the 24-hour secretion rate must be measured, at least in pituitary dwarfs, by taking a blood sample at least once an hour for 24 hours. (Some advocate every 20 minutes.) Thus, although the growth hormone RIA has been widely advertised commercially, its improper use may yield meaningless or misleading results.⁷

Placental lactogen (chorionic somatomammotropin) is another commercially available RIA, and its circulating level is a function of placental size.

It has been hoped that its measurement would be of value in detecting placental "insufficiency" in the third trimester, with resulting fetal distress. However, to be clinically useful, the insufficiency must first be suspected, and then hormone levels must be done every few hours to detect a change, which generally is precipitous, and indicates need for immediate delivery of the infant. It has been suggested that persistent levels below 4000 ng./ml. in the otherwise healthy third-trimester woman indicate the likelihood of placental insufficiency. More (controlled) experience with this test is needed before its usefulness can be determined.

Insulin. This was the initial RIA developed by Yalow and Berson, and works quite well technically. However, it has little clinical usefulness in managing diabetics, although it has shown conclusively that juvenile diabetics are insulin-deficient, maturity-onset diabetics are insulin-resistant, and brittle diabetics have extremely high levels of endogenous anti-insulin antibodies. It has also shown that pro-insulin exists ("big" insulin), and that the percentage of "big" insulin in the plasma of patients with insulinomas is usually high, between 25 and 80 per cent of circulating insulin, giving its identification diagnostic value. Insulinoma also can be diagnosed in 50 per cent of cases by fasting the patient at least 60 hours (shorter periods are insufficient). Diagnosis of insulinoma is established if the patient still shows inappropriately high levels of circulating insulin (over 5 microunits per ml.). However, 50 per cent of insulinoma patients, as well as reactive hypoglycemics and normal patients, will show levels below this, in the normal range. Thus, a negative test does not exclude insulinoma. It should also be noted that a blood glucose level below 20 mg./ml., whether random or fasting, is practically diagnostic of insulinoma. The tolbutamide tolerance test may cause severe hypoglycemia in the presence of insulinoma, and is considered unsafe.

Gastrin. Yalow and Berson also developed the RIA of gastrin, which is enormously elevated in the Zollinger-Ellison syndrome, and in pernicious anemia. The gastrin level may be somewhat raised above normal in peptic ulcer of the stomach or duodenum, although there is too much overlap with the normal for the test to be clinically useful. The normal level is around 110 to 165 pg./ml. The intact gastrin molecule must be used to produce antibodies, since use of gastrin fragments will result in antibodies which are cross-reactive to other gastrointestinal secretagogues.

Glucagon. Glucagon is poorly antigenic, and requires conjugation for antibody production.

There are technical problems in the assay, such as enzymatic destruction of the antigen, and the appearance of cross-reactive or glucagon-like substances in the serum following a hypoglycemic stimulus. The RIA has no clinical application at present.

Pituitary hormones. *ACTH* has been synthesized, and its blood level measured by RIA, with normal values of 10-20 ng./ml., showing diurnal variation. The RIA is complicated by the enzymatic degradation of *ACTH* during incubation. The RIA has been used to distinguish primary from secondary adrenal insufficiency. The pituitary glycoprotein hormones, *FSH*, *LH*, and *TSH*, have been difficult to measure by RIA, since antibody production is difficult, time-consuming, and unpredictable, and the antibodies to all glycoprotein hormones (including chorionic gonadotropin) are greatly cross-reactive. The problem of cross-reactivity is thought to have been recently solved by raising antibodies to only the beta fragment of each hormone, which appears to confer specificity. Because of these difficulties, at present the RIA is best limited to research situations, and any commercially available kits should be viewed with suspicion. However, *TSH* levels have been found to be quite satisfactory in the diagnosis of thyroid disease, and measurement of plasma chorionic gonadotropin permits diagnosis of pregnancy almost immediately upon implantation; i.e., even before a menstrual period is delayed.

Chorionic gonadotropin. Because high levels of this hormone rapidly appear following implantation, the RIA is potentially quite useful in the diagnosis of pregnancy. The problem of cross-reactivity with the other glycoprotein hormones may prove to be unimportant, as they are present in only trace quantities. This is said to be commercially available.

Thyroxine and triiodothyronine. RIAs for these substances have been developed, and may eventually replace the current assay techniques utilizing competitive protein binding, although the levels as measured by RIA are subject to the same physiologic variations which complicate the interpretation of the more familiar T_3 and T_4 tests (e.g., variations due to pregnancy, drugs, androgens, etc.).

Steroid hormones. *Aldosterone* has low antigenicity, and antibody induction is highly unpredictable, although once obtained, the antibodies are specific. This hormone may be more easily assayed indirectly by the RIA for plasma renin activity, as described previously. *Cortisol* is fairly readily measured at present, using competitive

protein binding. *Testosterone* and *progesterone* each require conjugation in order to raise antibodies, which then show considerable cross-reactivity, thus requiring careful characterization before they can be used for reliable RIA. *Testosterone* can be measured at present by competitive protein binding. Its clinical usefulness, however, is small, since it has no significant variation in most cases of amenorrhea, etc.

Calcitonin. This calcium-lowering hormone, secreted by the thyroid C cells, is present in huge amounts in the serum of patients with medullary carcinoma of the thyroid, thus permitting diagnosis by RIA. Using tumor antigen, the RIA is quite sensitive and satisfactory, but no other clinical application has been found for measuring calcitonin in humans. Interestingly, recent microdissection studies have shown that the ultimobranchial body present in reptiles, and homologous to thyroid C cells of higher vertebrates, derives from neural crest tissue, as do argentaffin cells of carcinoid tumors, chromaffin cells of pheochromocytomas, and neurofibromas, thus giving embryogenetic unity to the Sipple syndrome.

Carcinoembryonic antigen. This antigen has been detected in extracts of colon carcinoma and of fetal colon. It is present in the serum of about 80 per cent of patients with well-established or metastatic adenocarcinoma of the colon, 30 per cent of those with carcinoma of the stomach, and 100 per cent of those with carcinoma of the pancreas, although its presence in the serum of patients with any of these malignancies in the incipient or early stages is uncertain. CEA is produced by extraction from tumor tissue, but in order for the antibodies to be specific, the antigen must be absorbed against normal human colon, which may be difficult to do on a large or commercial scale. However, unless this is done, the antigen and antibodies are quite non-specific, which may account in part for their reported presence in a wide variety of malignant and non-malignant diseases, including carcinoma of the breast, chronic lung disease, and uremia. Thus, any commercially available RIA for CEA must indicate the specificity of the antigen and the antibody for the results to be interpretable.

Transplantation antigens. Antigens of the HL-A series have been individually used to raise specific antibodies, with development of a satisfactory RIA for each antigen, and thus permitting accurate, rapid determination of the HL-A profile of potential organ donors and recipients. The rapidity of this method of profiling will expedite the use

of cadaver organs obtained following trauma, since these deteriorate rapidly after death.

In summary, it is evident that enthusiasm for the potential of radioimmunoassay must be restrained in most instances until adequate, controlled clinical experience has been gained; that samples must generally be obtained under exacting conditions for the results to be meaningful; and that technical limitations impose restrictions on the application of many tests at the present time. However, with these problems solved, radioimmunoassay has great potential in the diagnosis and management of disease. ★★★

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LIFE AT THE TOP

The mother whale was instructing her baby in the hardships of life. "And remember," she said, "it's only when you get to the top and start blowing off steam that you get harpoons thrown at you."

EASY TO FORGET

Shivering wife in rowboat to duck-hunting husband: "Tell me how much fun we're having. I keep forgetting."

Twenty Years of Progress in Public Health in Mississippi

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DR. B. S. GUYTON, president of the Mississippi State Medical Association during the 1950-51 term, stressed in his presidential address that Mississippi "is not at the bottom of the list nor even in the middle or lower third among the states in dealing with the health of her citizens."¹ As a sign of current dispute to Dr. Guyton's evaluation for the 1950's, public health controversies in Mississippi during the 1970's have become so heated that charges of "genocidal neglect" have been hurled at state authorities. Dr. Thomas Gualtieri, director of the Delta Community Hospital and Health Center in Mound Bayou, recently said that "unless (more) public medical care is made available to the poor people in the Delta, they will die."²

The incompatible positions of Guyton and Gualtieri regarding public health care in Mississippi deserve evaluation. The purpose of this study is to examine carefully and then to compare public health care expenditures in Mississippi in fiscal 1952 to similar expenditures in fiscal 1972.

The availability and, to some degree, the quality of public health care in two different time periods can be evaluated according to the relative amounts of spending for public health in each period. "Public health care expenditures" are defined in this paper as the monies spent for all preventive and therapeutic programs provided or available to citizens of a state by local, state, and federal governments. Health services supported by the civic clubs and associations are varied and substantial, but such private expenditures for public health are excluded. Furthermore, expenditures for Veterans Administration programs are not included.

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Public health care expenditures are divided into three major subdivisions; namely, Public Health and Hospital Services, Mental Health and Men-

Heated public health controversies have arisen in the 1970's. A revealing insight concerning progress in Mississippi's public health care is offered in this paper by comparing public health expenditures in fiscal 1952 to similar spending in 1972.

Composite comparative figures are cited for state, federal, and other spending for three classifications of public health care in Mississippi in 1952 and 1972. Based on these studies, the author suggests first, that major advances in public health have occurred, second, that publicized charges of genocidal neglect are grossly exaggerated, and third, attention should be given to coordination and regulation of federal, state and local programs dealing with public health care.

tal Rehabilitation, and Vocational Rehabilitation and Miscellaneous Programs for the Handicapped. Expenditures for each subdivision in fiscal 1952 are shown in Table I.

In fiscal 1952 the Public Health and Hospital Services subdivision included the following major programs:

- (1) State Board of Health, whose major mission was to offer preventive medicine through health departments in 80 of the 82 counties in the state, as well as eight special services such as school health and nutrition, venereal disease control, etc.;

PUBLIC HEALTH / Pruet

(2) State Hospital Commission, whose purpose was to provide payment for hospital care for the indigent sick in 73 community hospitals over the state;

(3) Charity general hospitals located in Vicksburg, Natchez, Jackson, Laurel, and Meridian, which were open to all indigent patients; and

(4) State sanatorium, which provided hospital care and treatment for patients with tuberculosis and other chest diseases.

Mental health expenses in 1952 involved support of the Mississippi State Hospital at Whitfield, the East Mississippi State Hospital at Meridian, and the Ellisville State School at Ellisville.

The third major subdivision, Vocation Rehabilitation and Miscellaneous Programs for the Handicapped, included such programs as services and training for the disabled, the blind, the deaf, spastics, and crippled children.

FISCAL YEAR 1972

By fiscal 1972, however, the addition of revolutionary medical programs as well as growth in expenditures quickly became apparent. Public health spending in 1972 in Mississippi is shown in Table II.

In fiscal 1972 all of the programs operational in 1952 not only continued to function but also were often expanded to expenditures in multiples of the 1952 spending levels. Significant developments in (1) the level of federal spending, (2) Medicaid, (3) the expansion of programs supervised by the State Board of Health, and (4) the number of agencies authorized by federal legislation in the 1960's require brief examination before statistical comparisons between fiscal 1952

and fiscal 1972 public health care expenditures can be drawn.

The number and size of federally funded public health programs in 1952 was small relative to those of 1972. Furthermore, acceptance of federal support *vis a vis* state or private support in 1952 may have been dampened by the traditional independence of Mississippi citizens. Based upon close studies of budget fund discussion data and supported by reports from a State Board of Health official, I estimate that the total federal expenditures in Mississippi in 1952 for all public health care programs were only \$1,720,000.³ Tabulations for 1972 set a dollar level for accepted federal support in 1972 at \$83,739,660. Federal expenditures in Mississippi in fiscal 1972 were thus at a level *at least 48.7 times* the estimated federal support of 1952.

A rapid spurt in the growth in federal spending in Mississippi began in Jan. 1, 1970, with the state's participation in Medicaid, a federal program of medical assistance for the needy. Dr. Joseph B. Rogers, who was president of the Mississippi State Medical Association for the 1968-69 term, said of this revolutionary act, "With benefits available through Medicaid, a patient has free choice of physician and hospital, regardless of location."⁴ On June 30, 1971, 217,555 persons in Mississippi, *fully 10 per cent of the state's population*, were eligible for Medicaid services.⁵ As a matter of fact, expenditures for Medicaid alone in fiscal 1972 totaled \$54,984,681—\$44,881,676 from federal funds and \$10,103,005 from state support. At this point, it should be brought out that Medicare, federal payments toward medical expenses of any participating citizen older than 65, is different from Medicaid, medical payments to the needy. Federal expenditures for Medicare are *not* included in the fiscal 1972 figures in Table III. If Medicare had been included, approximate-

TABLE I
PUBLIC HEALTH CARE EXPENDITURES IN MISSISSIPPI IN FISCAL 1952

	<i>State Appropriations</i>	<i>Non-State Funds</i>	<i>Total Available Expenditures</i>
Public Health and Hospital Services	\$3,228,917	\$1,665,953	\$ 4,494,870
Mental Health and Mental Rehabilitation	3,084,863	695,140	3,780,003
Vocational Rehabilitation and Miscellaneous Programs for the Handicapped	684,900	746,370	1,431,270
Total	\$6,998,680	\$3,107,463	\$10,106,143

Source: Data for fiscal 1952 are extracted from the *General Fund Budget Discussion for the Fiscal Biennium 1952-54 for the State of Mississippi* by the State Budget Commission. Fiscal 1952 appropriations represent one half of the actual state appropriation for the 1950-52 biennium. The "non-state" funds include monies from federal, county, and local sources combined.

TABLE II
PUBLIC HEALTH CARE EXPENDITURES IN MISSISSIPPI FISCAL 1972

	<i>Federal Funding</i>	<i>State Funding</i>	<i>Other Funding</i>	<i>Total Funding</i>
Public Health and Hospital Services	\$62,480,793	\$21,932,137	\$ 9,130,902	\$ 93,543,832
Mental Health and Mental Rehabilitation . . .				
Vocational Rehabilitation and Miscellaneous . . .	2,292,700	18,544,134	2,220,043	23,056,877
Programs for the Handicapped	18,966,167	14,157,210	940,475	34,027,852
Total	\$83,739,660	\$54,633,481	\$12,255,420	\$150,628,561

Source: Data for fiscal 1972 are drawn from the 1972 Catalog of Health Programs compiled by the Mississippi Division of Comprehensive Health Planning, Jackson. The health role of this agency is "to develop, review, and coordinate private and public sector health planning." Use of this source of data instead of the General Fund Budget discussion of Mississippi is justified by the relatively recent proliferation of federally funded programs which are not reported in the General Fund Budget Discussion. In 1972 there were 11 programs supported solely by the federal government, 19 jointly supported by federal and state funds, 17 by the state only, two by the state and other sources and one by federal and other funds. "Other Funding" in this table includes internally generated monies and support from local government.

ly \$82,000,000 would have been added to the \$62,481,000 amount of federal funding for Public Health and Hospital Services.⁶

Expenditures by the State Board of Health in 1972 reached a level approximately 2.5 times the total 1952 spending. General health services were provided in each of the 82 counties in the state, and the list of special services had grown from 8 to 53. In addition, innovative comprehensive health planning to supplement the activities of local health departments, namely, the federally-supported Delta Pilot Project, was examined.

Finally, authority for additional federal public health care expanded greatly during the 1952-1972 period. In addition to Medicaid, of major importance were certain directly-funded federal O. E. O. (Office of Economic Opportunity) agencies. Included in this classification were the Tri-County Community Center, the Delta Community Hospital and Health Center (initially known as the Tufts-Delta Health Project and the Mound Bayou Community Hospital), and also the group known as Community Action Agencies (Emergency Food and Medical, Family Planning Programs, Head Start Programs, Migrant Workers Programs, Neighborhood Youth Corps Programs, and Seasonally Farm Workers Programs). Separately also, the Public Health Service Act, Section 314, made provision for various Mississippi health planning councils, the Medgar Evers Comprehensive Health Center and the Jackson-Hinds Comprehensive Health Center. Public health care in 1972 also included the County Health Improvement Program, which was reported in the University of Mississippi School of Medicine-sponsored projects.

Spending for Mental Health and Mental Rehabilitation in 1972 was 6.1 times the 1952 level of expenditures. Federally funded community mental health centers were in operation in the Tupelo and Oxford regions of the state; while 14 additional such centers for Mississippi were in various stages of planning. Successful operation of these centers would substantially improve the outpatient treatment of the mentally disturbed and emotionally ill.⁷ Furthermore, construction began in 1972 on the North Mississippi Retardation Center in Oxford, a new facility for diagnosing, treating, and rehabilitation of the mentally retarded.

Finally, new programs have been added to Vocational Rehabilitation and Miscellaneous Programs for the Handicapped. The Mississippi Division of Appalachian Development has a major health role of augmenting the health resources of the 20 counties of Mississippi eligible for Appalachian funding. The Mississippi Council on Aging was authorized to provide supplementary physical and mental health services to the elderly as well as offering well balanced meals delivered to homes of elderly homebound persons found in need of the service.

COMPARISONS

Meaningful comparisons between public health care expenditures in 1952 and those in 1972 can be made upon careful examination of Table III. Population in Mississippi during the 1952-72 time span was essentially constant; hence increases in the total amount spent on public health are reflected in parallel increases in *per capita* expenditures.⁸ Total state expenditures for public health

care increased 690.1 per cent during the specified time span. This increase was partially caused by the ballooning cost of health services,⁹ but it also reflects an increasing recognition of social health needs by leaders of state government.

The probability of greater awareness of social need by state leaders today than was shown 20 years ago is supported by at least three factors. First, a large percentage of federal health care spending requires a specified participation by state government. Medicaid, the largest and most revolutionary program, is a prime example. In this case then, greater social concern by state leaders may be at least partially forced in order to gain the benefits of federal spending. Second, the multiplied growth of the State Board of Health in both special and basic programs of preventive medicine constitutes sound evidence of greater awareness of public health needs. Finally, the percentage of total state receipts spent for public health care moved up from 10.4 per cent of state income in 1952 to 14.5 per cent in 1972. This change reflects a *larger* percentage of a *greater* amount of state money being spent on public health care in 1972 as compared to 1952.

Public health expenditures in Mississippi in 1952 amounted to \$4.63 per state citizen; whereas the national *per capita* expenditure for public health and medical programs in a proximate period averaged \$13.55. Additional data for 1952 would be required to compare Mississippi's public health spending to that of other states. Statistical

studies indicate that, nationally, federal support in 1950 amounted to about 30 per cent of public health and medical programs spending.¹⁰ In Mississippi, however, federal support accounted for only an estimated 17 per cent of the total amount. The paucity of federal support during this period was probably more than offset by free service supplied by private practitioners rather than in an equivalent decline in the availability of public health care.¹¹

By 1972, however, after the institution of Medicaid and other federal public health programs, comparative positions in public health expenditures between Mississippi and the rest of the nation changed radically. Total public health spending increased from \$10,022,406 in 1952 to \$150,628,561 in 1972—a *15-fold increase*. Even after adjusting for inflated medical costs over the 20 year span, public health expenditures in 1972 were at a level *6.6 times* comparable spending in 1952. As shown in Table III, the national average *per capita* expenditures in a proximate period for public health and medical moved up to \$51.30; while for Mississippi similar spending soared to \$67.67 in 1972—a figure well above the national average.

CONCLUSIONS

Available data concerning public health care expenditures in Mississippi in fiscal 1952 and 1972 have been examined. Comparisons of spending in the two periods led to the observations cited in the preceding section. The three following conclusions seem justified:

(1) Using total spending for public health

TABLE III
COMPARISON OF 1952 AND 1972 PUBLIC HEALTH CARE
EXPENDITURES IN MISSISSIPPI

<i>Selected Comparison Points</i>	<i>Fiscal 1952</i>	<i>Fiscal 1972</i>	<i>Per Cent Increase</i>
1. Population	2,163,000	2,226,000	2.9
2. Total State Expenditures for Public Health Care	\$ 6,914,943	\$ 54,633,481	690.1
3. Percentage of State Receipts Spent for Public Health	10.4	14.5	40.8
4. Total Public Health Expenditures (Federal, State, Local, other)	\$10,022,406	\$150,628,561	1403.0
5. Per Capita Expenditures in Mississippi (all sources)	\$4.68	\$67.67	1346.0
6. Per Capita Expenditures for Public Health and Medical Programs in the United States	\$13.55	\$51.30	278.6

Sources: Item 1—*Statistics on the Developing South*, May, 1972, Federal Reserve Bank of Atlanta, p. 1; Items 2 and 3—General Fund Budget Discussion, 1952-54, state of Mississippi; Items 4 and 5—Compilation of previously identified data; Item 6—*Socioeconomic Issues of Health*, 1972 Edition, Center for Health Services Research and Development, American Medical Association, pp. 1 and 134. The comparison dates are 1950 and 1971 for item 6, since fiscal 1952 and fiscal 1972 were not identified specifically in this data source.

resources in Mississippi as the major criterion of progress, it is apparent that there have been major advances in public health care in Mississippi during the 1952-72 time span.

(2) In view of the documented increases in spending for both preventive and therapeutic public health care in the last 20 years, the Gualtieri position concerning public medical care in Mississippi, which implied "genocidal neglect," appears to be grossly exaggerated and of doubtful validity. In contrast, the Guyton position, which claimed high ranking for Mississippi in public health care as compared to other states, seems sound for 1972 as well as for 1952.

(3) Finally, in view of the proliferation of federal programs designed to improve public health care, provision should be made to avoid wasteful duplication of effort. In addition to developing a comprehensive health *plan* for the state, attention should also be given to *co-ordination* and *regulation* of federal, state and local programs dealing with public health care.

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7. Dr. W. L. Jaquith, director of the Mississippi State Hospital at Whitfield, indicated in a personal interview with Mrs. Ronald Pruet on Aug. 15, 1972, that there was little coordination between the federally funded community health centers and the state-supported mental institutions and that improvements were needed.
8. Study of previously cited references, *Statistics on the Developing South and the Budget Discussions of 1952-54 and 1972*, reveals that *per capita* income during the period increased 212 per cent; while state receipts increased by 463 per cent.
9. The price index for medical care increased from 58.1 in 1952 to 132.5 in 1972 according to the most recent U. S. Bureau of Labor statistics, an increase of 128.1 per cent.
10. In 1950 federal expenditures for public health and medical programs amounted to 29.3 per cent of the total. *Socioeconomic Issues of Health*, op. cit., p. 134.
11. In his speech, "Medical Care Coverage in Mississippi," Dr. Guyton said that "physicians and surgeons give their services free of charge to indigent patients admitted to community hospitals under the Mississippi State Hospital Commission program," and also that "probably 10 per cent of the patients seen by private practitioners get free service because of their inability to pay." op. cit. pp. 441, 442, and 445.

GOOD MANNERS?

Susie's mother was pleased that the first grade was working on courtesy and good manners. She looked forward to her little girl's summary of what they'd learned every day. On Wednesday, Susie came home and announced proudly, "When you're seduced, you always shake hands!"

“Going to Russia?”

J. T. DAVIS, M.D.

Corinth, Mississippi

THE FIRST STAGE of our journey started in Memphis, Tennessee, on September 28 when we boarded a DC 9 jet for New York City. There we took off from the John F. Kennedy International Airport in a 707 Pan American Jet with 130 passengers aboard and set sail across the Atlantic at 650 miles per hour, with an altitude of 35,000 feet, in the direction of Moscow, Russia. It was 9:30 p.m. New York time when we took off and headed toward Boston, Massachusetts. As we passed over Newfoundland at 11 o'clock that night we were served a delicious dinner on board followed by the showing of three movies for those who could stay awake that long. As we crossed the edge of the Arctic Circle we could see the beautiful multicolored northern lights, a real sight to behold. At daybreak just beyond the mid-Atlantic, 2:00 a.m. New York time, we were served a hearty breakfast. There was some sleep in the form of catnaps for a few, but sleep for most of us was impossible because of the constant activity and excitement. (I was afraid I might miss something.) As we approached the northern shores of Scotland at approximately 5 a.m. New York time we were served a very luscious mid-day meal. This made three meals in six hours, and by this time, Mary and I felt like two stuffed crabs crowded into airplane seats like a couple of sardines, bleary-eyed from loss of sleep and with cold feet, but our spirits were high.

As we sped across the European continent in the direction of Moscow, we had a few glimpses through the clouds and overcast sky of Denmark and the city of Copenhagen. At 7:45 a.m. New York time we landed at the International Airport in Moscow, where it was 3:45 p.m. Russian time. It was cold and snowing. We bundled ourselves up well for the cold weather, heaved a big sigh, deplaned and took our first look at the Russian environment. Everything looked bleak and dreary.

We were loaded into a bus which needed a good coat of paint and the seats repaired, and were whizzed off to the customs office to present our credentials. Here we found the military very courteous and accommodating. After satisfying the officials as to how much money we were carrying, we were advised to declare all articles of value such as watches, precious stones, jewelry and gold coins. Our baggage was not molested. However, it was interesting to note that long hair, unshaven face and blue jeans are a signal for a thorough search of all baggage. We were told that they were looking for drugs.

We caught the bus outside the airport for a 30 minute ride to downtown Moscow and to the Hotel Rossia. Here we met our Russian guide and interpreter who was to be our companion for the next 11 days. She was a beautiful peroxide blond, intelligent, well educated and spoke five different languages. She boasted of the fact that she was a card-carrying member of the Communist party. She barred no questions and ignored no request on the part of her guests. As a member of the Russian Olympic Tennis Team of three years ago she was well informed regarding the events of the recent Olympic games that were held in Germany. She stated that the Russian people respected and recognized the superiority of the United States Olympic team in many events, but they abhorred those of our team who were outwardly defiant and disrespectful to the country which had sent them there to participate.

The Hotel Rossia was located just one block off the Red Square close to the Kremlin in the heart of Moscow. We were told that this hotel was the largest in the world having 6,000 rooms, four large lobbies, north, east, south and west and occupying more than one city block. The hotel had adequate accommodations, clean rooms and sufficient heat, but was poorly lighted.

After checking in at the hotel, a hot bath and a change of clothes, we again met our Russian guide, who had reserved a special table where we

Chairman, Board of Trustees, Mississippi State Medical Association.

were to eat the next six days while in Moscow. The food was adequate and nourishing, but a little on the heavy side and lacked the niceties that go along with the gourmet art. The basic items of every meal were potatoes, black bread, and cabbage. There were also white bread and hard rolls which were delicious. The green vegetables were cucumbers and cabbage, the latter having been served in some form at most every meal. The meat, mostly veal and chicken, was well prepared and served along with plenty of caviar. The water was potable and palatable. The beer was tasty and similar to our ale. On the second day of our visit we were served a real delicacy, cabbage soup known as "Boesch," which caused several members of our party to be indisposed during the next 24 hours. This item was immediately deleted from our menu. One of the pleasant surprises of our trip was that the coffee was good, contrary to what we had been told in the states.

The service in the dining room was adequate, but slow. If you were not there on time for your meals, there was no service. The dining room seated some 500 people, but probably because of shortage of help, each meal was served in relays. Thus if you were not present at your group's sitting, you ate what was left at the table when you came. The waiters were young boys, clean shaven, with short hair and wearing light blue uniforms, which although clean, were a little bit dowdy in appearance. There was no apparent incentive to excel in their services as no gratuities were allowed. If and when there was some irregularity in the food or service, our little card-carrying Communist guide would intervene, and they appeared to recognize the voice of authority.

VITAL STATISTICS

Russia is a great country. It occupies one sixth of the land surface of the world and is three times the size of the United States. The population of the USSR is 240 million people and the land is filled with many natural resources such as oil, coal, precious stones, silver and gold, as well as abundant forest products. The USSR is composed of 15 different states and 15 different dialects are spoken.

The legislative body of the country is the Supreme Soviet. The laws of the state are administered by the Council of Ministers. The ruling party is the Communist Party which is the only political party in Russia. The currency is the ruble and the kopeck. The former, since the time of the floating American dollar, is worth approximately one dollar and 21 cents of American money. The Kopeck is worth approximately one cent. The

shops, restaurants and hotels will not accept the American dollar or any other foreign currency as foreign currency is illegal. The American dollar can easily be exchanged at any Russian state bank or a service department in any hotel. No Russian money is allowed to leave the country.

The ruling power in Russia is the Communist Party, to which, we were told, approximately 30 per cent of the people belong. It is apparent that the members of the Communist Party are well informed, well educated people, deeply indoctrinated individuals, and firmly dedicated to their cause and way of living. Our guide boasted of the fact that she was not only a card-carrying Communist but that she was also an atheist. She informed us that although there was free worship for the people, only about two per cent followed the faith of Christianity. The statement that free worship was allowed in Russia was challenged by one member of our party and he was immediately told by our guide that any person in Russia was allowed to go to any church of his choice at any time he wished. She also stated that the young people in Russia were not encouraged to attend church nor to join Christianity but instead were taught to take part in the culture of the present age in the form of opera, ballet, and the theater as well as making every effort to further their education.

FRIENDLY PEOPLE

Contrary to the usual belief, the people of Russia were friendly, courteous and accommodating. In their work they were slow, methodical and patient, but the results of their efforts were rewarding in the finished product. Most of the construction work is still carried on by hand tools instead of mechanized machinery. At the construction site many of the workers were seen to be still using the old pick and shovel in excavation work, and others were carrying concrete mix in small liters by hand.

Our interpreter told us that because of the women's liberation which was instigated approximately 25 years ago in Russia, now all women have equal rights with men for opportunity, compensation and work. This apparently is quite true as we noticed and were later told that 50 per cent of the drivers of the big transportation buses are women. Also we noted that there were many women members of the construction crews, driving tractors, using the pick and shovel for excavation, and carrying concrete. It might be worthwhile for our women to take a second look at the American women's liberation movement that has recently materialized in this country.

The dress of the Russian people appeared to

be adequate for the weather and apparently comfortable, but showed little evidence of tidiness and freshness. It was rather drab and often times unclean. The shirts were frequently poorly laundered and their suits were somewhat drab and frequently ill fitting. Their shoes were made for hard wear and durability. There was no evidence of styling and very few shoes that could be shined were shown in the shops. To the traveler there appeared little incentive on the part of the Russian people to excel in their work other than being cited for exceptional effort and attainment by the state. Everyone is paid a salary by the state usually commensurate with how much he returns to the state in productivity or how valuable his services are in furthering the cause of the people or workers.

We were told that the coal miners received the highest pay in Russia, closely followed by taxi cab drivers in the cities. This was followed in sequence by teachers, doctors, engineers and architects, the teachers receiving a top pay above any other profession. The average salary of a professional employee ranged from \$150 to \$300 per month depending upon her or his age, how long he has been working, and his level of productivity. The cost of living varied in localities, but the average rent of an apartment with two bedrooms, dining room, kitchen, bath and living room was 14 rubles or approximately 16 American dollars per month. He usually paid 30 to 40 rubles for a pair of shoes, 100 rubles for a suit, and approximately 25 rubles for a hat. The food was relatively expensive ranging from one to two rubles per meal in the usual restaurant. A cup of coffee cost approximately 25 kopeck which is about 25 cents in American money.

Because all shops and businesses in Russia belong to the state and everyone is paid a salary by the state, there is little incentive for salesmanship or to display merchandise in an attractive manner. To make a purchase in a large department store in Moscow known as GUM required approximately 45 minutes. Most usually it was necessary to line up behind some seven to ten customers before reaching the counter to make your purchase. After making your purchase and the saleslady had made out the invoice slip, the invoice was taken to the cashier down the hall, where one again had to line up in order to pay for the article that you had purchased, and then return to the previous department and line up again in order to pick up your package that you had purchased and paid for. After two purchasing experiences we became discouraged and consequently curtailed our shopping.

One unusual sight that we noted was the number of people walking the streets in the city of Moscow from early morning until late at night, usually 11 p.m. After that hour most of the streets were clear. This may have been due to the short hours of work, that is eight hours five days a week, allowing the working class of people a great deal of leisure time, or it may have been due to inadequate transportation. There are few automobiles in Russia compared to our overrun highways in the United States and it was apparent that most of the people had more time to walk than money to buy means of transportation. All automobiles and trucks seen on the streets were of Russian make. There were no foreign cars in the country. Further inquiry regarding this revealed the fact that all machinery and commodities as well as wearing apparel and the essentials for living were made within the boundaries of Russia. It was explained that Russia was trying to develop her own economy.

In recent months Russia has contracted for the importation of heavy machinery, tractors, and farm equipment so as to help mechanize their farms in an effort to increase their productivity. It is interesting to note that because of the poor productivity on the farms, even though 25 per cent of the population work on the farms, they can not produce enough to feed their people. This might be compared with the fact that approximately two to three per cent of the people of the United States live on the farms and produce sufficient food to not only feed the people of our country, but have an excess of farm products to export. There has been considerable concern of recent date since Russia bought several hundred million bushels of wheat from this country in that the transportation of the wheat has bogged down because of Russia's inability to keep pace. The same amount of wheat which is loaded onto a ship in this country in approximately one day takes some 10 to 15 days to unload in Russia because of the ill equipped sea ports and the lack of mechanization of their unloading facilities.

EDUCATION

The Russians have made great strides in educating their people. At the time of the Bolshevik Revolution in 1918 about 75 per cent of the population was illiterate. The first edict Lenin issued after the revolution was toward educating the people. All education is free to everyone. In 1930 the Soviet Congress made it compulsory that everyone should have at least four years of schooling. In 1970 this law was amended to render compulsory education through the tenth year. All students who continue their education after the

tenth year have state allowances and for the more talented students, grants are given to support the student in furthering his college education. Room rent at the university is three rubles a month which is approximately \$3.65 in American money. Meals cost approximately 35 to 45 cents. There are some 630,000 students in the city of Moscow and 40,000 students are attending the University of Moscow. The requirements for a degree are similar to ours, that is five years for a degree in arts, engineering and geology, and seven years for an M.D. degree. They have just recently begun teaching English in the first grade, the language heretofore having been taught only in high school and the university years.

The Russians boasted of the fact that they have no drug problems in their schools, and although smoking is allowed, it is discouraged. To consume the leisure time of the students, athletics are encouraged. The students have access to health clubs, and most everyone participates in gymnastics, basketball, football, skiing, hockey, or swimming. Students showing evidence of excelling in athletics, science, art or engineering are placed in a special category where they not only are encouraged to continue to cultivate their talents, but receive special dispensation in coaching, equipment, privileges, and special grants in an attempt to push them to the top. This probably accounts for the excellency in many fields in which the Russians stand out. In Moscow there is a stadium which seats 100,000 where all the international events are held in Russia.

ENTERTAINMENT

Entertainment for the young as well as the old borders on the classical such as the ballet, the opera, and cinema. There are no night clubs in Russia and pornography is outlawed. It is apparent that drug traffic is under control but alcoholism is their greatest problem with vodka being the principal alcoholic drink.

During the meeting of the 24th Congress of Ministers in 1970 a five-year plan was outlined in an attempt to develop their heavy industry, boost the economy of the country and increase productivity on the farms. In Russia you see only those products which are made within the boundaries of the country. No imported products were seen for sale in the shops. All wearing apparel and other products are made by state-owned manufacturing plants. No articles recognizable of western civilization are seen east of the Russian border. It is apparent that the Russian people are not interested in buying anything made outside of their boundaries but they will make every attempt

to either buy or otherwise procure technology from other countries. This probably accounts for the slow progress in many fields and the fact that their standards of living are approximately 25 years behind ours.

On the political front there is much to be learned. A review of Russian history may give one some understanding of the thinking of some of their political leaders. Since the 12th century when the Tartans invaded and ruled Russia for approximately 250 years, that country has been a victim of conquest. Alexander the Second overthrew the Tartans and restored the rule to the Russian Empire. Then followed Ivan the Terrible, Peter the Great, Catherine the First and then the Czar Nicholas. During this time the country was invaded by Turkey, Sweden, France, Poland, and during World War II, by Germany. If you take a look at the map you will note that Russia has now surrounded herself with satellites on all sides. Rumania and Albania on the south, Yugoslavia and Czechoslovakia on the southwest and East Germany on the west. These friendly countries or satellites serve as a buffer zone between potential enemies to the south and west. When China entered the communist fold it was a great victory for Russia as it completed her entire encirclement by sympathetic communist friends.

Casual remarks by our guide led us to believe that the majority of people in Russia were sick and tired of war and that they only wanted to live in peaceful coexistence. She stated that their past experiences with invaders of their country compelled them to keep their defense strong and their military in constant readiness. It was the consensus of opinion of our party after our visit to Russia that we had little to fear from the military invading our country, but their communist activities working within our government as a 5th column in the higher places of influence certainly are a much greater and more dreadful enemy. One has only to look to our good neighbor in South America, Chile, whose democratic government has been taken over by the communist party as the result of gradual but continuous erosion and undermining by Marxism. The country is on the verge of civil war now that many of her people have awakened to the fact that because of apathy and disinterest on the political front, their liberties are lost and their properties confiscated.

Moscow, Russia, is the center of communism and the heart and brain of the Communist Party. The latter continues to invade other countries with its propaganda and to exploit the government of these countries of the world with its influence. In September 1972, just two weeks prior to our arrival in Russia, there was held in the city of Mos-

cow the World Wide Congress of Friendship. There were representatives of the communist party from every country in the world attending this congress. To our knowledge the theme of the meeting was to bring together "friends of Russia" for a better understanding and a rededication to the common cause of the workers. We were told that Russia wished to be a friend to everybody and that she has no design or plans for conquest. They said that this was the basis of their thinking in formalizing the treaty with the United States for arms limitation and mutual exchange of technology in space as well as science.

The members of our party viewed these remarks with a jaundiced eye and concern. Our disbelief in this rationale was strengthened after viewing the events that have happened to the democratic government in Chile and after reading many of the speeches that were made at the 24th C. P. S. U. Congress in Russia in 1970. The following is a typical quotation taken from one of the speeches and I quote: "Communist construction in the USSR is inseparable from the World Revolutionary Process, from the struggle for peace and security of people. This is clearly seen from the entire international activity of our party and the foreign policy course worked out by the 24th C. P. S. U. Congress of 1970." Mr. L. I. Brezhnev is general secretary of the C. P. S. U. and was one of the main speakers at the congress. He has also played a prominent role in negotiating the treaty between the United States and Russia, regarding disarmament.

MEDICAL CARE

Now for something about the medical care of the Russian people. We visited the city hospital in Moscow which has 1300 beds and serves some 140,000 people. Mr. Kalmikov, the chief surgeon of this hospital, was very courteous, gracious and informative. He stated that his staff was composed of 250 physicians, 30 of whom were surgeons, and 1600 nurses. For the care of the patient he stated that he tried to assign not more than 20 patients to each physician. Each patient was seen at least once daily by his physician. In the hospital there were eight operating rooms, nine beds for recovery following operative procedures, and 18 operating room nurses. We were allowed the liberty of inspecting the hospital and interviewing the patients through our interpreter. We all agreed after our inspection that medical care was fairly good but certainly not outstanding and did not approach that in U.S.A. The hospital outside and inside

needed a good coat of paint. The floors were wooden and not always clean. The patients' beds resembled the old iron bed that grandma used to have in her upstairs bedroom at home and showed evidence of wear and tear. The bed linens appeared to be clean but not pressed and instead of tucking the bed linen beneath the mattress they used it to bundle the patient, tucking it in beneath the patient on all sides. The babies in the nursery were incarcerated in a pillow case slipped over a pillow, the pillow serving as the mattress. This arrangement immobilized the baby and prevented his kicking off the cover.

We were allowed to enter the operating room after slipping on some old overshoes over our street shoes, putting on a gown that had been hanging on the wall for some time and slipping on a stocking cap to cover our head. The operating room appeared to be well equipped with the latest monitoring equipment but it was noted that the female surgeon was still wearing her street clothes. We were told the rate of infection was between two and three per cent. In the next operating room that we entered a male surgeon was performing a cholecystectomy under general anesthesia. Again the monitoring equipment was good and the technique of the surgeon was excellent. It was very difficult to satisfactorily interview the patients on the ward because of the language barrier. However from all appearances in the hospital, the medical care was good.

All medical care in Russia is free to everyone. The doctors and the nurses work a seven-hour day, five days a week. The pay for a general practitioner after his first year of internship is 140 rubles per month which is approximately \$150.00 in American dollars. His pay is increased by longevity of service and merit of productivity. The chief of surgery told us that he made approximately 350 rubles per month which was approximately \$400.00 in American dollars. He was asked if he was satisfied with his lot as chief surgeon and his pay and he answered in the affirmative. He said, "At least I can enjoy what I make. The doctors in the United States work too long hours. Even though they do get more pay, they have less time to live and enjoy it." It is their custom to send the physician, after he has finished his internship, to the rural areas for a period of three years. At the end of that time they have a choice of coming back into the hospital and specializing in some specialty other than general practice. The statistics indicate that approximately 50 per cent of these physicians who go into the rural areas usually stay there. The other 50 per cent return to the hospital, specialize and are attached to hospitals over the country. There are 23 emer-

agency hospitals in the city of Moscow, located in districts and serving approximately 25,000 each. Their ambulance service which is assigned to each district is so arranged that an ambulance may be dispatched to any point of accident or catastrophe within a period of five minutes. Our information was that there were 674,000 medical doctors in the USSR which allows approximately 27 doctors to every 10,000 people, as compared with 15 doctors to 10,000 people in the United States. In the city of Moscow alone, the budget for medical care is 360,000,000 rubles. The population of Moscow is approximately 7,000,000 people.

LENINGRAD

Our flight to Leningrad, the second largest city in Russia and located approximately 800 miles north of Moscow, was made aboard the only domestic airline in Russia. Here we found a beautiful city built on the banks of the Neva River and laced together with many canals. Leningrad is frequently referred to as the "Venice of Russia." More than 300 bridges link the city together in one great mecca for sightseers. It is a city of pleasant parks and squares, fine monuments and public buildings, all with a stirring memory of the past. The Winter Palace, Pushkin Theater, the Bronze Horseman, and the Peter and Paul Fortress are historic points of great interest. Probably the most renowned of all is the world famous hermitage museum, containing more than two million objects of art. Anchored permanently in the Neva River facing the Admiralty Building is the Russian Cruiser "Aurora" from which the first shot was fired in 1918 to signal the beginning of the Bolshevik Revolution.

During World War II Leningrad was surrounded by the German army for a period of two years. During this time 800,000 of the population died of starvation and exposure. Pushkin, a small city 20 miles north of Leningrad and the sight of the summer palace of the nobility during past centuries, was devastated by the Germans. The palace was sacked and precious jewels and valuable articles were carried to Berlin. Many of these were never recovered. Hostility and animosity toward the Germans is very evident among the natives.

We returned from Leningrad to Moscow and the only international airport in Russia. Here we climbed aboard a S.A.S.-707 jet airliner (Swedish Air Service) bound for Stockholm. It was refreshing to see the neatly dressed stewardesses, the white, clean and starched uniforms of the stew-

ards, the new brightly painted passenger cabin of the airliner with the seats upholstered with fresh covers. Most impressive to us was the hilarity of the entire crew as they went about their duties. This atmosphere had not prevailed in Russia during our visit.

In summary, our visit to Russia was a great success. In spite of all the unfavorable propaganda fed to us in this country by our news media concerning the people in Russia, there are a few good points worthy of mentioning. The Russians are courteous, friendly and accommodating. They are a restrained people and well disciplined. At the circus in Moscow approximately 50 per cent of those attending were young people. Yet at no time were there boisterous outbursts of laughter or chatter nor was there unusual or unbecoming behavior. No throwing of objects during the performance was noted and at the conclusion the grounds and floor were conspicuously clean of debris. If one dropped a program or a piece of paper on the floor, he was asked to pick it up.

Russia is proud of her record of little crime. One may walk the street any time day or night with safety. We were told the courts believe in swift justice and that capital punishment is a deterrent to the spread and acceleration of crime. (Maybe we in this country have something to learn.)

Russia will bear watching during the next few years as many changes are going on within that country. For the first time since the Bolshevik Revolution in 1918 the Iron Curtain has been lifted to western civilization. Tourism will soon be one of their great industries as they open the gates to visitors. Trade from the other parts of the world will greatly assist in advancing the standards of living and help increase productivity by mechanizing industry and farming. Technology is all Russia lacks being on par with any other great power of the world. They have the labor and the natural resources. When they open the doors to world trade and the exchange of ideas and technology, all they need then is time.

Going to Russia? Then keep your passport and visa secure and close to your heart, for it is your only assurance of passage to the dear "old U.S.A." and home!

Do I recommend the trip? Yes! It was not a vacation but an unusual education and the answer to my great curiosity regarding many things behind the Iron Curtain. ★★★

815 Childs Street (38834)

Radiologic Seminar CXXIV: Gonadal Dysgenesis

JOHN Y. GIBSON, M.D.
Jackson, Mississippi

IN 1938, WHEN Henry Turner reported seven cases of the syndrome of infantilism, congenital webbed neck and cubitus valgus,¹ he was not aware of most of the radiographic features of gonadal dysgenesis. Furthermore, he did not know the etiology nor the cardiovascular and urinary tract anomalies associated with this syndrome.

Patients with gonadal dysgenesis have normal female differentiation of external genitalia, uterus and fallopian tubes but these remain infantile in size.² The gonads are virtually absent, being represented only by narrow, whitish streaks in the broad ligaments. The secondary sex characteristics other than pubic hair fail to develop. The patient is usually moderately stunted in growth and often has a webbed neck with low hairline. The mandible and chin are frequently underdeveloped and the person may have low set ears. There may be lymphedema of the hands and feet.

Eighty to ninety per cent of patients with gonadal dysgenesis have only 45 chromosomes with an XO pattern compared to the normal 46 with either an XX female pattern or an XY male pattern. This results from non-disjunction of the sex chromosome.³ It is expressed by the absence of the clump of condensed chromatin seen in the periphery of the nucleus of the somatic cell of normal females. The chromosomal designation is therefore considered "chromatin negative."

Approximately 70 per cent of patients with gonadal dysgenesis have associated anomalies of the urinary tract.⁴ Over half of these will have either a form of malrotation of the kidneys or a horse-shoe kidney (see Figure 1). Urinary tract anomalies cannot be correlated with the presence or absence of any of the common stigmata of this syndrome.

In many reported series a majority of patients have associated congenital heart disease. Coarctation of the aorta is most common (see Figures 2 and 3). Coarctation is relatively uncommon in otherwise normal females as compared to its occurrence in males and when found in the female, one should consider coexisting gonadal dysgenesis. Ventricular septal defect and pulmonic stenosis may occur. Hypertension without coarctation is found in about one third.

Skeletal anomalies are the most characteristic radiographically demonstrable features of the syndrome. Of these, the metacarpal sign is the most nearly pathognomonic finding.⁵ Shortening of the



Figure 1. Horseshoe kidney in patient with gonadal dysgenesis.

Sponsored by the Mississippi Radiological Society.
From the Department of Radiology, University Medical
Center, Jackson, Miss.



Figure 2. Abnormal aortic knob in young patient with gonadal dysgenesis and coarctation. "Shield-like chest" is also evident.

fourth metacarpal relative to the third and fifth occurs in approximately 75 per cent of these cases. Normally, a line drawn tangential to the distal end of the heads of the fifth and fourth metacarpals extends distal to the third metacarpal. A positive metacarpal sign is present when the line passes through the head of the third metacarpal (see Figure 4). The positive sign is most often bilateral but, if unilateral, the left side expresses the sign most frequently. This is unrelated to hand dominance. When found in more than one generation of the same family, the sign is virtually without significance as far as gonadal development is concerned. When found in only one generation, the sign is frequently associated with gonadal dysgenesis.



Figure 3. Another patient with gonadal dysgenesis and coarctation. Rib notching was quite apparent on the original radiograph. Note webbed neck and thinning of lateral aspect of clavicles.

Skeletal maturation is delayed to at least a mild degree in almost all patients with gonadal dysgenesis.⁶ Bone demineralization is common and can be attributed to the lack of estrogen analogous to post-menopausal osteoporosis. The frequently present cubitus valgus is manifested by a carrying angle at the elbow of less than 160° .

Kosowicz has reported changes in the knees of 12 of 18 patients with gonadal dysgenesis.⁷ The medial femoral condyle is larger than the lateral and extends downward below the level of the lateral condyle. The medial tibial condyle is also enlarged and in some instances there projects from it a beak-like exostosis. These changes are usually bilateral and symmetrical.



Figure 4. Positive metacarpal sign.

The chest cage is often "shield-like," being broader than usual relative to the width of the pelvis (see Figures 2 and 3). The clavicles are maldeveloped in a significant percentage of patients. The commonest form of clavicular deformity is thinning or tapering laterally,³ but in some there is an abnormal curvature or lack of modeling. Slight abnormalities of contour of the ribs have been reported in up to three fourths of these patients. There can be pseudonotching in the absence of coarctation. Scoliosis is present in about one fourth and the sternum may be abnormal.

If given estrogen replacement therapy, patients with gonadal dysgenesis can achieve sexual maturation although sterility will, of course, remain.

SUMMARY

A description is presented of the etiology, clinical appearance and radiographic features of gonadal dysgenesis. Radiographic illustrations of associated skeletal, cardiovascular and urinary tract anomalies are provided. ★★★

2500 North State Street (39216)

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JUST CHECKING IT OUT

A new patron of the Cincinnati Public Library was astounded at the vast supply of freely lent material. He stood in the record department, gazing around and gripping his card.

"You mean," he said, "with this card I can take out any record I want?"

Assured of this, he went on, "And I can take out any color film you have?"

Another assurance didn't stop the dazzled patron, who persisted, "With this card can I take out any librarian?"

Here the young lady at the record desk sweetly informed him, "The librarians, sir, are for reference only."

Cincinnati Inquirer



MEETINGS

NATIONAL AND REGIONAL

American Medical Association, Annual Convention, June 24-28, 1973, New York City. Clinical Convention, Dec. 1-5, 1973, Anaheim, Calif. Ernest B. Howard, Executive Vice President, 535 N. Dearborn St., Chicago, Ill. 60610.

STATE AND LOCAL

Mississippi Academy of Family Physicians, Annual Meeting, July 12-14, 1973, Biloxi. Mrs. Alyce Palmore, Executive Secretary, P.O. Box 12330, Jackson 39211.

Mississippi State Medical Association, 105th Annual Session, April 30-May 3, 1973, Biloxi. Charles L. Mathews, Executive Secretary, 735 Riverside Drive, Jackson 39216.

Amite-Wilkinson Counties Medical Society, Third Monday, March, June, September, December. James S. Poole, The Field Clinic, Centreville 39631, Secretary.

Central Medical Society, First Tuesday, January, March, May, September, November, 6:30 p.m., Primos Northgate Restaurant, Jackson. Max Pharr, B6 Medical Arts Building, 1151 N. State St., Jackson 39201, Secretary.

Claiborne County Medical Society, 1st Tuesday each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, P.O. Box 147, Port Gibson 39150, Secretary.

Clarksdale and Six Counties Medical Society, First Wednesday, May and November, 2:00 p.m., Clarksdale. Glenn L. Wegener, 1967 Hospital Drive, Clarksdale 38614, Secretary.

Coast Counties Medical Society, First Wednesday, January, March, May, September and November. J. H. Gaddy, 4502 15th St., Gulfport 39501, Secretary.

Delta Medical Society, Second Wednesday, April and October. Walter H. Rose, 122 E. Baker St., Indianola 38751, Secretary.

DeSoto County Medical Society, Third Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Baxter Clinic, Hernando 38632, Secretary.

East Mississippi Medical Society, First Tuesday, February, April, June, October, and December. Reginald P. White, East Mississippi State Hospital, Meridian 39301, Secretary.

Adams County Medical Society, First Tuesday, February, April, June, August, October, and December, Eola Hotel Roof, Natchez. Walter T. Colbert, Jefferson Davis Memorial Hospital, Natchez 39120, Secretary.

North Central District Medical Society, Third Wednesday, March, June, September, and December. Robert B. Townes, 1196 Mound St., Grenada 38901, Secretary.

Northeast Mississippi Medical Society, First Thursday, March, June, September, and December. Jack A. Stokes, 207 Holmes Rd., Pontotoc 38863, Secretary.

North Mississippi Medical Society, First Thursday, April and October. Cherie Friedman, 1004 Jackson Ave., Oxford 38655, Secretary.

Pearl River County Medical Society, Second Monday, March, June, September, and December. J. C. Griffing, Crosby Memorial Hospital, Picayune 39466, Secretary.

Prairie Medical Society, Second Tuesday, March, June, September, and December. W. C. Welch, P.O. Box 5448, Mississippi State 39762, Secretary.

Singing River Medical Society, Third Monday, January, March, May, July, September, and November. Jeff Hodges, 1365 Market St., Pascagoula 39567, Secretary.

South Central Mississippi Medical Society, Second Tuesday, March, June, September, and December. Julian T. Janes, Jr., 304 Clark, McComb 39648, Secretary.

South Mississippi Medical Society, Second Thursday, March, June, September, and December. Larry J. Hammett, 2601 Mamie St., Hattiesburg 39401, Secretary.

West Mississippi Medical Society, Second Tuesday, January, April, July, and October, 6:30 p.m., Magnolia Motor Motel, Vicksburg. Martin E. Hinman, The Street Clinic, Vicksburg 39180, Secretary.



The President Speaking

“A Plea for Comprehensive Health Planning”

CHARLES R. JENKINS, M.D.
Laurel, Mississippi

THE AMERICAN PEOPLE spend more on health care than any other nation in the world. This is true both in absolute terms—75 billion dollars a year—and as a per cent of our national income. The expenditure of this vast sum of money should insure good health services to every individual. This, however, is not always true and the reasons are not too readily apparent.

One reason that is obvious is the multiplicity of state and federal programs that propose to buy health care for segments of the public. Some of these programs are good and soundly administered; others are poorly conceived and so wasteful as to attract investigations of fraud. We can not do too much in influencing federal programs, but we can have an important input in our community, regional, and state programs.

In our own state of Mississippi we have numerous agencies that participate in health care planning and delivery. Frequently these agencies overlap each other and often have conflicts of interests as each strives for the legislative dollar.

In the local sector many hospitals could improve their efficiency with uniform cost accounting, financial reporting, and cost-finding systems. Hospitals that review and monitor patient care have found that the reduction in patient days is considerable and reduction in hospital days is a savings to the patient and to the carrier.

Comprehensive health planning at the state, regional, and community level offers a vehicle which can reduce waste, costly duplication, and overlaps of time and manpower. It is also clearly a place where the individual physician has the chance to provide the leadership expected of him. Working with all elements of the health care team and responsible segments of the public, he can help institute programs that will utilize more efficiently the various paramedical services available to the community. This will in turn give him more time for diagnosis and treatment which can only be done by the physician.

A very gratifying “side-effect” of this participation is the increased goodwill that emanates from the lay public when they see their physicians concerned and actively involved in efforts to improve the health care of the community. ★★★



The Emergency Department Physician: an Emerging Specialty

The advent of the emergency room specialist while perhaps not overdue is certainly timely. Many practitioners are poorly qualified to perform well under emergency conditions and it is good that the day is passing when the general staff of any hospital divides the duty of "on call" attendance in the emergency room. While some are well qualified for this function, others are seldom exposed to the general emergency conditions that confront this department of the hospital.

Emergency room attendants are becoming more and more expert at initiating definitive treatment to the seriously ill or injured patient and the practice has become a specialty in itself. Too, the public has begun to expect 24 hour service in the hospital and in larger centers this is becoming more and more the only available medical attention during "off hours." Frequently this is the first contact a patient may have with the health care system.

While the image of the country doctor is passing and the closeness between him and his patient is fading it may, in part, well be because with each passing day medicine is becoming more of a science and less of an art. An enlightened public is being educated to expect more immediate and expert attention to the ill and injured and less consolation to the family.

This change, however, is not all for the best as it, no doubt, is partly responsible for the increase in malpractice suits. Such suits were virtually unheard of in the days of the "horse-and-buggy" doctor.

We must accept the bad with the good.

W. MONCURE DABNEY, M.D., Editor
Crystal Springs, Miss.

A Plan for Internal Controls

Noting that "the health care delivery system is on short notice to demonstrate effective internal controls over the quality and costs of its services . . .," the Joint Commission on Accreditation of Hospitals conducted a T.A.P. Institute at Biloxi this month. T.A.P. stands for Trustee, Administrator and Physician. The institute, one of several to be conducted throughout the nation during 1973, introduced revised standards of the JCAH which require member hospitals' boards, administration and medical staffs to implement

EDITORIALS / Continued

formal programs to assure the quality and cost effectiveness of all care rendered for both in-patients and outpatients.

The Joint Commission on Accreditation of Hospitals is a voluntary organization that surveys and evaluates hospitals and other health care facilities. The JCAH Board of Commissioners is appointed by the American College of Physicians, American College of Surgeons, the American Hospital Association and the American Medical Association. Over 40 Mississippi hospitals have requested and received JCAH accreditation.

"Medical Care Evaluation" is the term applied by the JCAH to describe the approach the hospital medical staff should take in its efforts to define high quality of care and to specify the means by which it can best be achieved. Such evaluation involves fact-finding and educational functions. Fact-finding will deal with the establishment of criteria to measure the effectiveness, timeliness and appropriateness of medical care provided in the hospital. Education will be concerned with improvements in quality and cost effectiveness.

Recent federal legislation establishing Professional Standards Review Organizations indicates that such organizations will test and attest to the adequacy of internal hospital systems to measure the necessity, quality and appropriateness of services provided to Medicare and Medicaid beneficiaries. Implementation of the revised JCAH standards by its member hospitals should more than assure that such systems are operational.

CHARLES L. MATHEWS
Executive Secretary, MSMA

Happy Birthday SSA?

January 1, 1973, marked the 36th birthday of the U. S. Social Security System. On that date Social Security taxes took their biggest jump and no doubt the system now exceeds the wildest projections of its authors in both benefits and taxes.

Self-employed persons will pay a maximum of \$864.00 in 1973 and this will rise to \$960.00 in 1974. Employed persons will pay a maximum of \$631.80 in 1973, with an increase to \$702.00 scheduled for 1974. Employers have to match those amounts.

There was some thought given during enactment of the Social Security System in 1937 to make the system operate on the contribution-

compound interest concept of private pension plans. This was discarded, however, in favor of an essentially pay-as-you-go system.

Recent congressional amendments to the Social Security Act not only raised taxes and benefits but tied both to cost of living increases. Based upon a 5 per cent annual rise in wages and a 2.75 per cent annual rise in prices, those participating in the Social Security System during the year of its 72nd birthday can contribute some \$10,000 in taxes and receive some \$30,000 in benefits as payees and payors respectively.

CHARLES L. MATHEWS
Executive Secretary, MSMA

Journal MSMA Is Now Microfilmed

Current and back issues of the JOURNAL MSMA are now available in microfilm copies. The 35 mm positive microfilm fits all standard viewers.

Microfilm editions of journals take up less storage space and eliminate binding and storage costs.

For further information and ordering, write directly to Mrs. Marlene Hurst, Serials Section, Xerox University Microfilms, Ann Arbor, Mich. 48106.



"... and as soon as we've all finished munching on our tranquilizers, we'll read the treasurer's report."



THE LITERATURE

Book Reviews

Malnutrition: Its Causation and Control. By John R. K. Robson, M.D., in collaboration with Frances A. Larkin, Ph.D., M.D., Anita M. Sandretto, M.P.H., and Bahram Tadayyon, Ph.D. Two volumes with 613 pages, 100 tables, 130 figures, and 37 plates. New York: Gordon and Breach, 1972.

These two volumes represent a most ambitious and almost impossible task, i.e., to compress the knowledge of human nutrition into just under 700 pages, trying to include at least a mention of every pertinent aspect of the subject. These volumes cannot really be "read," but must be studied with generous supplementation of the text by referring to some of the 433 references. These references alone are very helpful in giving the reader an up-to-date compilation of significant writings in the many scientific and sociological disciplines relating to human nutrition. One such referred to a study done by Mississippi State University, published in the Home Economics Series No. 13 from the Agricultural Experiment Station, a study which sounds quite interesting but one which could easily be missed.

I was hoping that those volumes would be of some help to the busy physician advising his patients on this basic but confusing subject. There is a much increased public interest in nutrition, and it has been said that there are many food fad-dists, quacks, and self-styled nutrition experts ready to "plunge through the holes" in the medical knowledge of nutrition. The physician needs a concise text, but these volumes do not satisfy this need and would be of little practical benefit.

On the other hand, this could serve as a text for a two semester or three quarter course in human nutrition and, as such, give the student an accurate and comprehensive survey of this field.

Dietitians, public health workers, home economists, and educators would find the second volume quite pertinent to present-day concerns. There are many good discussions of various multidisciplinary approaches which have been tried in recent years to improve the quality of human nutrition throughout the world.

KARLEEN C. NEILL, M.D., Jackson, Miss.

Advances in Human Genetics and Their Impact on Society. Edited by Daniel Bergsma, M.D. 118 pages with illustrations. White Plains, New York, The National Foundation—March of Dimes, 1972.

This brief monograph is the outgrowth of a symposium on the ethical and social issues resulting from recent developments in the field of human genetics. Individual contributions by geneticists, a behavioral scientist, and professors of law range from the practical usefulness of new techniques such as chromosome analysis and amniocentesis to discussions of the legal ramifications regarding the usage of such data. Most of the discussions are rather general, apparently depending upon the reader for previous knowledge of genetics upon which ethical conclusions have been reached. Some of the details are brought out in audience participation and discussion, and considerably more scientific data is produced in a chapter on genetics and problems of social deviance.

This book presents the philosophy of applied human genetics today. It asks many questions that need asking. Its major emphasis is on broad social issues, rather than the detailed application of genetics to medicine. Much of the discussion revolves around the rights and responsibilities of individuals both for themselves and for future generations. The concluding summary states that, "Current knowledge is deeper, the techniques are more reliable, the opportunities for both good and bad are greater, but the basic questions are unchanged."

JOHN F. JACKSON, M.D., Jackson, Miss.



POSTGRADUATE CALENDAR

FUTURE CALENDAR

March 15-17, 1973

SURGERY SEMINAR (TENTATIVE)

March 28

RENAL SEMINAR

POSTGRADUATE / Continued

April 2-6

PEDIATRICS INTENSIVE COURSE

April 19

DIABETES SEMINAR

April 13-17

RADIOLOGY INTENSIVE COURSE

April 30-May 3

MISSISSIPPI STATE MEDICAL ASSOCIATION,
BILOXI



NEW MEMBERS

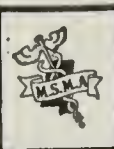
CREEKMORE, SAMUEL J., III, New Albany. Born Amory, Miss., Jan. 22, 1946; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1971; interned Memorial Medical Center, Savannah, Ga., one year; elected by Northeast Mississippi Medical Society.

OLTREMARI, BENELLA H., Greenville. Born Paint Rock, Tex., Sept. 2, 1929; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1966; interned University Medical Center, Jackson, Miss., one year; elected by Delta Medical Society.

RUSSELL, RICHARD H., New Albany. Born Pontotoc, Miss., May 3, 1942; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1971; interned Memorial Medical Center, Savannah, Ga., one year; elected by Northeast Mississippi Medical Society.

SISSON, CHARLES A., JR., Amory. Born Clarksdale, Miss., Mar. 29, 1936; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1961; interned Memorial Hospital, Chatham Co., Savannah, Ga., one year; pediatric residency, University Medical Center, Jackson, Miss., July 1, 1964-June 30, 1966; elected by Northeast Mississippi Medical Society.

TRAPP, JAMES T., Tupelo. Born Tupelo, Miss., Oct. 24, 1937; M.D., University of Pennsylvania School of Medicine, Philadelphia, Pa., 1964; interned Vanderbilt University, Nashville, Tenn., one year; surgery residency, Kennedy V.A. Hospital, Memphis, Tenn., July 1965-Aug. 1966; radiology residency, University Medical Center, Jackson, Miss., Aug. 1969-Aug. 1972; elected by Northeast Mississippi Medical Society.



DEATHS

COPELAND, EDWARD A., JACKSON. M.D., Mississippi Medical College, Meridian, Miss., 1910; member of Fifty Year Club of MSMA; Emeritus member of MSMA and AMA; member of Central Medical Society; died Dec. 15, 1972, age 90.

JAMES, WILLIAM A. D., Midnight. M.D., Tulane University School of Medicine, New Orleans, La., 1913; interned Charity Hospital, Vicksburg, Miss., one year; member of Fifty Year Club of MSMA; Emeritus member of MSMA and AMA; member of Delta Medical Society; died Nov. 14, 1972, age 84.



PERSONALS

GODFREY ARNOLD of Jackson attended a NIH study section and a Triological Society conference in Washington, D. C., in January.

RICHARD C. BORONOW of Jackson has been appointed to a year's term as a member of the clinical fellowship committee of the American Cancer Society.

ALFRED W. BRANN, JR., of Jackson recently surveyed the Massachusetts General Hospital intensive care unit in Boston.

HUGH P. BROWN has associated with GUY T. VISE, JR., of Jackson for the practice of orthopedic surgery and rehabilitation at Suite 425, St. Dominic Medical Offices, 971 Lakeland Drive.

ROBERT F. CARTER, JR., announces the formation of partnership with FRANCIS J. SELMAN, JR., in the practice of general and pediatric urology with offices in the Biloxi and Pascagoula areas.

RICHARD H. CLARK, JR., of Hattiesburg spoke to a meeting of Southwest Mississippi physicians, ambulance service owners and hospital administrators held at Brookhaven's Kings Daughters Hospital. Dr. Clark spoke on proposed emergency medical service legislation at the meeting sponsored by the Mississippi Trauma Committee of the American College of Surgeons, Southwest Mississippi Hospital Council and Comprehensive Health Planning Program.

J. F. ECKFORD of Starkville was presented the Golden Deeds Award of the Starkville Exchange Club in recognition of his outstanding contributions to the area during his 45 years in the practice of medicine.

C. MIMS EDWARDS of Jackson announces the opening of his offices at 416 St. Dominic Medical Offices, 971 Lakeland Drive for the practice of psychiatry.

ENRIQUE FLECHAS of Natchez was guest speaker before the December meeting of the Natchez Historical Society. Dr. Flechas spoke on "Christmas in Colombia."

HARVEY L. FLOWERS of West Point is serving as medical advisor of the current Clay County March of Dimes campaign.

RAY FOSTER, JIM G. NORRIS, II, HANSEL JANET and G. R. ROBINSON have all set up new offices in the Coastal Medical Center, Gateway Executive Park, Biloxi. Drs. Foster, Janet and Robinson practice internal medicine and Dr. Norris is in neurology.

JERRY B. GULLEDGE of Crystal Springs has been elected president of the Rolling Hills Country Club.

B. L. HAMMACK announces the opening of his office for the family practice of medicine at 1381 Stateline Road in Southaven.

HUGH H. JOHNSTON of Vicksburg is serving as flotilla commander of Division III, District 8 of the U. S. Coast Guard Auxiliary.

WILLIAM C. KELLUM of Tupelo is serving on the board of directors of the North Mississippi Kidney Foundation.

HERBERT G. LANGFORD of Jackson attended a cardiovascular research study committee meeting in New York City.

ANDIN C. MCLEOD has associated with the Hattiesburg Clinic Professional Association for the practice of orthopedic surgery.

GARY A. NELSON has associated with W. J. PATTERSON for the family practice of medicine at the Clinton Family Clinic, 650 Hwy. 80 East in Clinton.

J. ELMER NIX of Jackson has been elected chairman of the Medical and Scientific Committee of

the Mississippi chapter of the Arthritis Foundation.

J. E. RUFF announces the opening of his office for the practice of psychiatry at St. Dominic-Jackson Medical Offices. Dr. Ruff is located in Suite 608 at 971 Lakeland Drive in Jackson.

JERRY R. RUSSELL has been named head of the department of radiology and nuclear medicine at the Vicksburg Hospital. Dr. Russell succeeds FRED HAMERNIK who has retired after 25 years at the post.

RICHARD E. SCHUSTER of Brandon has been named a member of the board of trustees of Rankin General Hospital by the county board of supervisors.

BILLY SHOWS announces the opening of his office for the general practice of medicine in the former Wakham-Simmons Clinic Building in Newton.

BILLY M. WANSLEY announces the removal of his office for the practice of internal medicine to 1210 West Division Street in Biloxi.

EDWIN B. WERKHEISER is now employed fulltime on the medical staff of Mississippi State Hospital at Whitfield.

La., Miss. Internists Hold Scientific Meeting

Plans have been completed for the 1973 Louisiana-Mississippi Regional Meeting of the American College of Physicians. The two-day session for internists and physicians in related specialties will be held Feb. 23-24, 1973, at the Royal Sonesta Hotel in New Orleans.

The 20,000-member American College of Physicians (ACP) is an international medical society with the prime function of providing continuing education to practicing physicians.

The Louisiana-Mississippi Regional Meeting is one of 40 scientific meetings being sponsored by the ACP during the 1972-73 academic year. Held throughout the United States and Canada, these scientific sessions help physicians keep informed about new knowledge and developments in the basic and clinical sciences.

The Louisiana-Mississippi meeting is being planned under the joint direction of Dr. A. Sheldon Mann, New Orleans, ACP Governor for Louisiana, and Dr. Guy D. Campbell, Jackson, ACP Governor for Mississippi.

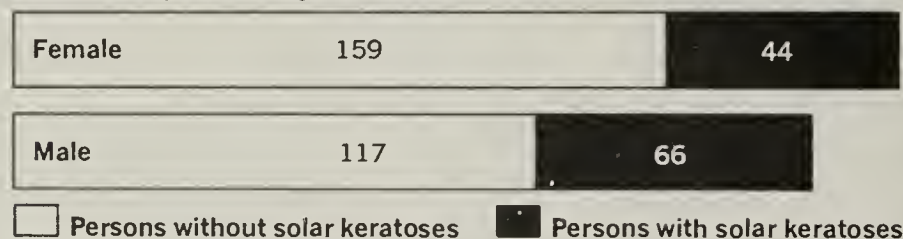
What it means to live and work in Tipton County, Tennessee

**Persons who are white and
over 40 have one chance in four
of having solar keratoses...
which may be premalignant**

An epidemiologic study* conducted in Tipton County, Tennessee, revealed that 28.5% of white persons over 40 had solar keratoses; most had multiple lesions. Cluster sampling projected an estimated prevalence of 32.5% for white males and 19.5% for white females.

Though this is an unusually high percentage of affected persons, these lesions can occur in any white population, wherever people work or play out of doors.

**Prevalence of solar keratoses in white persons
over 40 in Tipton County, Tennessee**



*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey.



Solar, actinic, senile keratoses

Called by many names, the typical lesion is flat or slightly elevated, brownish or reddish in color, papular, dry, adherent, rough, sharply defined; usually multiple lesions, chiefly on exposed portions of the skin.

Sequence/selectivity of response

Erythema in areas of lesions may begin after several days of therapy; height of reaction (only in affected areas)* usually occurs within two weeks, declining after discontinuation of therapy. Since this response is so predictable, lesions that do not respond should be biopsied to rule out the presence of a frank neoplasm.

Cosmetic results

Cosmetic results are highly favorable. Incidence of scarring is low—important with multiple facial lesions. Efudex should be applied with care near the eyes, nose and mouth.

5% cream—a Roche exclusive

Only Roche formulates the 5% cream... high in patient acceptability... high in clinical efficacy, especially for lesions of hands and forearms... economical.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)amino-methane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).

an alternative to
conventional therapy
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(fluorouracil)
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Nutley, N.J. 07110





LETTERS

SIRS: You will recall that the Food and Drug Administration's Bureau of Radiological Health has responsibility for developing and administering a radiation control for health and safety program as authorized by Public Law 90-602. Under that program, a radiation safety performance standard for diagnostic x-ray equipment was published on Aug. 15, 1972, to become effective one year later.

The bureau recently learned that some dealers have been advising physicians and other users that all existing x-ray equipment will have to be upgraded to meet requirements of the standard by the effective date of Aug. 15, 1973. You may be able to perform a service for your readers by informing them that such advice is contrary to fact.

Upgrading of x-ray equipment now being used is not now required by the standard. State and territorial radiation control authorities have been asked by the Bureau to so inform equipment users and dealers.

Our communication to the states and territories made one other point. This was that, although equipment now in use will not have to be modified before the standard becomes effective, owners installing manufacturer-certified components in such x-ray systems after next Aug. 15 must install components of the type called for by the federal standard.

Additional information about the standard may be obtained from the Division of Electronic Products, Bureau of Radiological Health, Food and Drug Administration, 12720 Twinbrook Parkway, Rockville, Md. 20852.

JOHN C. VILLFORTH, Director
Bureau of Radiological Health

Applications for NHLI Clinical Centers Invited

The National Heart and Lung Institute's Clinical Applications and Prevention Program is currently inviting contract proposals for additional clinical centers to participate in a Multiple Risk Factor Controlled Clinical Trial.

The goal of the trial is to determine whether

countermeasures against three common risk factors—elevated blood lipids, elevated blood pressure, and cigarette smoking—will reduce the incidence of heart attacks and death from coronary heart disease among high-risk males aged 35-54.

Approximately 80 per cent of death and disability from cardiovascular diseases occurs among persons having one or more of these risk factors working against them. Two or more risk factors are often present in the same individual. Current evidence indicates that men with any one risk factor run nearly twice the risk of coronary heart disease as do men with none of these risk factors. With any two factors present, the risk is 3.4 times higher; and with all three factors, the risk is more than 10 times that of men with none.

Contracts have already been awarded to eight clinical centers and a coordinating center. Investigators from these centers, in conjunction with the NHLI program office staff, are presently developing a common protocol and manual of operations for this trial. New contract recipients will follow this protocol and participate in subsequent developments.

Each clinical center will recruit at least 600 volunteers toward the study total of approximately 12,000 participants. Recruitment will be completed by September 1974 and the clinical phase of the trial in September 1980.

Men recruited by each center will receive medical and laboratory evaluation at the start of the program and annual checkups over a planned six years of followup. The study group will embark on a specially developed preventive program aimed at the reduction of elevated blood lipids by diet, the control of elevated blood pressure, and reduction or cessation of cigarette smoking. The control group will be referred back for management by their personal physicians or usual sources of medical care, but will be asked to report to the clinical centers for cardiovascular evaluations once each year.

The preventive measures to be evaluated in this trial will be procedures which could be undertaken by practicing physicians. "The aim is to assess the effectiveness of such measures in reducing illness, disability, and death from arteriosclerosis and its complications and, hopefully, to expedite the application of proven methods toward the prevention of coronary heart disease," stated Dr. Theodore Cooper, director of the National Heart and Lung Institute in describing this clinical trial.

An announcement of this contract program appeared in the *Commerce Business Daily* on Oct. 8, 1972. A mailing of invitations to potentially interested investigators has also been made.

If he's making the
rounds of San Francisco...

Antivert[®] (meclizine HCl) for vertigo*

Antivert[®] (meclizine HCl) has been found useful in the management of vertigo associated with diseases affecting the vestibular system. It is available as Antivert (12.5 mg. meclizine HCl) and Antivert/25 (25 mg. meclizine HCl) scored tablets for convenience and flexibility of dosage. Antivert/25 (25 mg. meclizine HCl) Chewable Tablets are available for the management of nausea, vomiting, and dizziness associated with motion sickness.

*INDICATIONS. Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12th-15th day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

ROERIG 

A division of Pfizer Pharmaceuticals
New York, New York 10017

SLE Latex Test Introduced

A new test for diagnosing and determining changes in antibody titer of systemic lupus erythematosus, a possibly fatal disease, has been introduced by Lederle Diagnostics, American Cyanamid Company.

Known as the SLE Latex Test, it is designed to identify, in one minute, the antibodies which are believed to cause lupus erythematosus. This rare disease, known mostly to middle-aged and older people, and women in particular, affects the body's defense mechanism and causes it to develop antibodies which destroy the body's own cells.

The less serious, or discoid form, appears as a rash on the face, called the "Butterfly Syndrome," which covers the nose and cheeks in the shape of butterfly wings. The systemic form includes the butterfly rash as well as skin lacerations over the entire body with joint pains and swelling and infection of internal organs. This

form is fatal to over 80 per cent of the people it affects.

No cure has been found for lupus erythematosus, but the disease can be controlled if diagnosed in time. Lederle Diagnostics' SLE Latex Test provides a sensitivity comparable to the LE Cell Prep Test, without requiring specialized equipment and personnel. The Latex-DNP Reagent used for detection consists of polystyrene latex particles coated with deoxyribonucleoprotein extracted from fetal calf thymus.

A medical assistant in the laboratory or physician's office can perform the test by mixing a sample of the patient's serum with the Latex-DNP Reagent provided in the kit. After one minute, agglutination of the test serum is compared to positive and negative controls to detect presence of the antinuclear antibodies. Positive serum can be serially diluted in physiological saline and retested to determine antibody titer, allowing the physician to follow the course of therapy.

The Lederle SLE Latex Test is currently available for \$28.50 per kit. Three or more kits ordered simultaneously are \$25.00 each.

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The MSMA Board of Trustees Holds Regular Winter Meeting

The Association's Board of Trustees conducted its regular Winter Meeting on Dec. 13-14, 1972. Legislation, review of a proposed association sponsored continuing medical education certification program, and the Delegates' Report of the 1972 AMA Clinical Meeting were among many items of business coming before the Board.

The Council on Legislation presented the association's 1973 legislative program to the Board. The program is to include association sponsored bills to provide a legal shelter for peer review activities and to provide insurance coverage for newborn infants. In other legislative action, the Board endorsed a positive program to regulate health quackery, supported a bill to regulate ambulances and ambulance personnel and opposed bills to apply federal "certificate of need" requirements to all hospital construction and to permit counties and municipalities to issue full, faith and credit bonds for construction of private physicians' offices in conjunction with public hospitals.

The association will seek the support of other interested organizations in developing a certification program for continuing medical education activities in the state for endorsement by the House of Delegates at the 105th Annual Session. The proposed program was outlined to the Board in a report from the Council on Medical Education. On another educational matter, the Board agreed to seek nominees to recommend for appointment to the UMC Admissions Committee.

The Delegates' Report of the 1972 AMA Clinical Meeting (see January JMSMA) was received for discussion by the Board. Particularly noted was the House of Delegates' approval for the

AMA staff and appropriate officers to participate in development and implementation of Professional Standards Review Organizations (PSROs) under Public Law 92-603. The Board commended Dr. C. D. Taylor of Pass Christian, retiring Delegate from Mississippi, for his service in the AMA House of Delegates.

During the two day meeting the Board of Trustees also met with other directors of the Mississippi Foundation for Medical Care and reviewed the status of a foundation membership drive. It was reported that there had been a 50 per cent increase in foundation membership since initiation of the current membership drive and that some 70 per cent of MSMA members in full-time private practice were now MFMC members. The Board reviewed development of Professional Standards Review Organizations and acted to officially investigate the feasibility of the MFMC qualifying under the PSRO program. The Board directed its Executive Committee to begin study and development of professional fee schedules.

In other actions, the Board of Trustees received an annual report on the MSMA-Continental Group Plans administered by Thomas Yates and Company of Jackson. Increased benefits were announced under the Disability Overhead and Catastrophe Hospital Plans. President Charles R. Jenkins reported on a successful membership drive to bring former members back into the association and the Board reviewed and approved an application for assignment of a National Health Service Corps physician to Inverness, Mississippi. The next meeting of the Board was tentatively scheduled for March.

Dr. Hardy Elected Southern Surgical Prexy

Dr. James D. Hardy, professor and chairman of the department of surgery, University of Mississippi School of Medicine, was elected president of the Southern Surgical Association at the recent annual meeting.



Dr. Hardy

Dr. Hardy, a native of Alabama, received his M.D. degree in 1942 from the University of Pennsylvania. He completed internship and residencies in general and thoracic surgery at the Hospital of the University of Pennsylvania. In 1950-51

he was the Senior Damon Runyon Fellow in Clinical Research there and received the Master of Medical Science degree in Physiological Chemistry.

The surgeon has held teaching positions at the University of Alabama, University of Pennsylvania, and the University of Tennessee College of Medicine prior to joining the faculty of the University of Mississippi Medical Center in 1955.

Dr. Hardy is certified by the American Board of Surgery and the Board of Thoracic Surgery. His hospital appointments include Surgeon-in-Chief, Hospital of the University of Mississippi, and Chief Surgical Consultant, Veterans Administration Hospital, Jackson.

Membership in professional societies includes Alpha Omega Alpha, American Association for the Advancement of Science, American Association for the Surgery of Trauma, American Association for Thoracic Surgery, American Association of University Professors, American College of Surgeons and American College of Cardiology.

Other memberships include the American Heart Association, American Surgical Association, The Transplantation Society, Society for Vascular Surgery, Society for Clinical Surgery, Society of University Surgeons, Mississippi State Medical Association, American Medical Association, Southern Medical Association and Southeastern Surgical Congress.

The internationally known teacher, surgeon

and investigator is recognized for his work in the transplantation field. He and his team were responsible for the first heart transplant, the first human lung transplant and the first kidney autotransplant for ureteral injury. They also performed the first human adrenal gland autotransplantation in this country.

He was a founder member of the International Surgical Group, Society for Surgery of the Alimentary Tract, and the Surgical Biology Club. Dr. Hardy is listed in *Who's Who in America* and *American Men of Science*.

Dr. Hardy served as chairman of the first session of the second World Heart Transplant Symposium in Montreal where more than 100 of the world's top transplant authorities took part in the scientific sessions. The AMA awarded Dr. Hardy and his co-workers the Hektoen Silver Medal for their presentation on transplantation studies in 1965.

He has been visiting professor at some 16 universities and medical centers in this country and abroad and in 1972 was named to the Frederick E. Kredel Honorary Professorship at the Medical College of South Carolina at Charleston.

Dr. Hardy is the author of 12 books and nearly 400 articles in the medical literature.

EMCRO Adds R.N. To Fulltime Staff

A fulltime registered nurse, Mrs. Hollis Thomas Fairley, has joined the staff of the Mississippi EMCRO (Experimental Medical Care Review Organization), according to Sidney A. Smith, EMCRO director.

Mrs. Fairley, a native of Tennessee, will be a nurse coordinator for the project and will assist the reviewing physicians in reviewing exceptional data (cases selected out by the computer for further review). She will also assist in the refining and further development of criteria and will work closely with the 30 participating hospitals in the state.

The R.N. was graduated from the Gilfoy School of Nursing in Jackson in 1965. She has previous experience in the intensive care units of Richmond Memorial Hospital and Johnston-Willis Hospital in Richmond, Va. Mrs. Fairley worked at the Mississippi Baptist Hospital in Jackson in admissions and pediatrics prior to joining the EMCRO staff.

The EMCRO is located in the headquarters building of the state medical association at 735 Riverside Drive, Jackson 39216.

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The coughing season is here again. Time to rely on the four Robitussins and Cough Calmers to help clear the lower respiratory tract. All contain glyceryl guaiacolate, the efficient expectorant that works systemically to help increase the output of lower respiratory tract fluid. The enhanced flow of less viscid secretions soothes the tracheobronchial mucosa, promotes ciliary action, and makes thick, inspissated mucus less viscid and easier to raise. Available on your prescription or recommendation.

For coughs of colds and "flu"

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Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Alcohol, 3.5%

For unproductive allergic coughs

ROBITUSSIN A-C[®]

Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Pheniramine maleate 7.5 mg.
Codeine phosphate 10.0 mg.
(warning: may be habit forming)
Alcohol, 3.5%

Non-narcotic for 6-8 hr. cough control

ROBITUSSIN-DM[®]

Each 5 cc. contains:

Glyceryl guaiacolate 100 mg.
Dextromethorphan hydrobromide 15 mg.
Alcohol, 1.4%

Robitussin-DM in solid form for "coughs on the go"

COUGH CALMERS[®]

Each Cough Calmer contains:

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Relieves cough, clears sinuses and nasal passages—
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Treats Your Patient's
Individual Coughing
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ROBITUSSIN A-C [®]	●	●	●			
ROBITUSSIN-DM [®]	●	●		●		●
ROBITUSSIN-PE [®]	●				●	●
COUGH CALMERS [®]	■	■		■		■

Use this handy chart as a guide in selecting the formula that provides the benefits you want for your patient.

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Oyster Related Hepatitis Reported in State

A report of hepatitis associated with ingestion of raw oysters was recently received by the Division of Preventable Disease Control of the State Board of Health, according to Dr. Durward L. Blakey, director.

A middle-aged male from Forrest County ate raw oysters as well as a variety of cooked shellfish during a week-long stay in New Orleans. Approximately seven weeks later, jaundice appeared and a diagnosis of infectious hepatitis was made. He had no known contact with jaundiced people and had no history of blood transfusions.

Another patient with an illness compatible with viral hepatitis gave a history of the ingestion of raw oysters in Hattiesburg. He also had contact with a person who subsequently developed hepatitis; therefore, this case probably represents person to person spread.

During the first quarter of 1972, the CDC received 5,125 case reports of viral hepatitis. Of these, 409 gave histories of recent raw shellfish ingestion. The first report of infectious hepatitis (Hepatitis A) traced to the consumption of raw oysters in the U. S. was in 1961 and described 80 cases of Hepatitis A which occurred in southern Mississippi and Alabama.

The source of these oysters was found to be a localized area at the mouth of the then heavily contaminated Pascagoula River. Evidence obtained during that investigation showed that conventional frying of oysters appeared to inactivate the virus. Epidemics of clam-associated hepatitis have also been reported.

The Division of Preventable Disease Control would welcome any reports of possible or confirmed cases of shellfish-related hepatitis. It is possible for isolated cases of hepatitis to be etiologically related, yet not recognized as related by individual physicians. Only through accurate reporting of hepatitis can disease trends be appreciated and appropriate preventive measures instituted, said Dr. Blakey.

PRESCRIBING INFORMATION

Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. Usage in Pregnancy: Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. Children and Adults: Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day; and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices. Because of limited data on repeated doses, no recommendations can be made.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles.

Clean Sweep



with a single dose of Antiminth[®]

(pyrantel pamoate) ORAL SUSPENSION

Highly effective against

pinworm and roundworm

Non-staining to teeth

or oral mucosa on ingestion, to
tools, clothing, linen

Simple dosage with a

single-dose regimen: 1 cc. per
10-lb. body weight (1 tsp./50 lb.;
maximum dose, 4 tsp.)

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clinical studies*

Pleasant-tasting, easy-to-

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suspension

Economical, because one

prescription can treat the entire
family

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ANTIMINTH[®]

(pyrantel pamoate)

equivalent to 50 mg. pyrantel/ml.

ORAL SUSPENSION

While Antiminth is highly effective against pinworms and roundworms, the illustration is not meant to imply 100% efficacy.

*Data on file at Roerig.

Please see prescribing information on facing page.

Dr. L. D. Webb Is Mid-South Medical President

A Mississippi physician, Dr. Lester D. Webb of Calhoun City, is currently serving as president of the Mid-South Medical Association.

Dr. Webb is also a member of the Mid-South Board of Trustees and in 1970 he was vice president from Mississippi.

Dr. Webb received the M.D. degree from the University of Tennessee College of Medicine in 1950. He has practiced medicine for 21 years and served as hospital administrator for 19 years.

Active in political affairs in his community, Dr. Webb has served as town alderman for four years and as mayor of Calhoun City for six years.

His professional affiliations include fellowship in the International College of Surgeons and the American Society of Abdominal Surgeons, membership in the American Medical Association, Southern Medical Association, American Academy of Family Physicians, MSMA and the Northeast Mississippi Medical Society.

Dr. Webb was named "Man of the Year" by the Wood Junior College Alumni Association in 1969 and received the "Outstanding Service Award" of the Calhoun City Chamber of Commerce and Development Association in 1970. He is also a past president of the Northeast Mississippi Medical Society.



Dr. Webb

Family Practice Chairman, Others Appointed

The appointment of a chairman for the new Department of Family Practice at the University of Mississippi School of Medicine has assured progress in the development of this vital aspect of medical education, announced Dean Robert E. Blount.

Dr. Wilfred Reginald Gillis, approved by the Board of Trustees, Institutions of Higher Learning, at the December meeting, will assume his duties July 1, 1973.

Formerly a division of the medicine department, family practice gained Board recognition of department status last May, said Dr. Blount, to meet both professional and educational needs for the new specialty.

A Canadian, Dr. Gillis holds the M.D. degree from Dalhousie University, Nova Scotia, where he interned and, immediately prior to his Mississippi appointment, served as assistant professor.

Certified by the College of Family Physicians of Canada in 1970, the new chairman has also engaged in private practice at Prince Edward Island and New Brunswick, Canada.

In a move to strengthen both service and training resources in a second field, the Board also approved the appointment of the first fulltime ophthalmology professor and division chief. Dr. Samuel B. Johnson, formerly at that post on the clinical faculty, is now on a fulltime basis. Present plans are to expand the division in cooperation with the Addie McBryde Rehabilitation Center for the Blind.

A third teaching staff addition, Dr. Frank Hines Bostwick, is new pathology assistant professor. The University of Mississippi School of Medicine graduate interned at the University of Miami and was a resident at the Medical College of Georgia, University Hospital at Jackson and Children's Hospital at Los Angeles. Before joining the Mississippi faculty, he served as a U. S. Army medical officer.

Prevention of Blindness Agency Offers Grants

The National Society for the Prevention of Blindness announces that it has research funds available for pilot projects which do not exceed \$5,000 per year. Investigators not currently financed by other sources of research funds are invited to apply.

Acceptable projects are those which may contribute to the prevention of blindness and eye disease through basic studies of eye function and disease, or that may improve diagnosis and treatment.

Grants are made for a one-year period. The maximum period of support for research is two years.

The National Society for the Prevention of

Blindness will accept applications any time during the year and will make awards promptly after evaluation by the Committee on Basic and Clinical Research.

Application forms and further information may be obtained by writing to the Committee on Basic and Clinical Research, National Society for the Prevention of Blindness, Inc., 79 Madison Avenue, New York, N. Y. 10016.

The National Society for the Prevention of Blindness, Inc., founded in 1908, is the oldest voluntary health agency nationally engaged in the prevention of blindness through a comprehensive program of community service, public and professional education and research.

New Orleans Plans 36th Medical Assembly

Dr. William M. Lukash, White House physician, and head, Gastroenterology Clinic, U. S. Naval Hospital, will be one of the many distinguished speakers from throughout the country participating at the 36th annual meeting of The New Orleans Graduate Medical Assembly this year. Meeting dates are Mar. 19-22, and headquarters will again be at the Fairmont Roosevelt Hotel.

Dr. Lukash will speak on "Observations of Chinese Medicine," a report on his visit to China with President Nixon. Other well known physicians will report on medical advancements in their various specialties.

A continuous showing of medical motion pictures, luncheons for specialty groups, a clinico-pathologic conference, technical exhibits, and planned entertainment for wives will all add interest to the three and a half day meeting.

This program is acceptable for 22 prescribed hours and 8 elective hours by the American Academy of Family Physicians.

For further information write to The New Orleans Graduate Medical Assembly, 1430 Tulane Avenue, New Orleans, La. 70112.

Safeguards Urged for O.T.C. Sedatives

Well-designed and controlled studies of non-prescription daytime sedatives are needed if the consumer is to be protected from drugs which

may be ineffective and at times potentially dangerous, declares a research report published in the January 1 issue of the *Journal of the American Medical Association*.

"If clinical (human) trials are required to establish the efficacy and safety of drugs prescribed under physician supervision, a requirement that is clearly warranted, then such trials may be all the more necessary in the case of drugs taken without such supervision," the report says.

Authors are Dr. Karl Rickels and Peter T. Hesbacher, Ph.D., of the Private Practice Research Group, Department of Psychiatry, University of Pennsylvania, Philadelphia, and of Philadelphia General Hospital.

The study was a two-week trial of the relative safety and efficacy of four products—one of the large-selling non-prescription daytime sedatives; aspirin (sometimes taken as a sedative); a commonly used prescription-type daytime sedative, and a placebo (an inert substance that has no effect other than psychological).

Neither the non-prescription sedative nor aspirin had any better effect as a mild sedative than did the placebo, the researchers report. The prescription sedative was much more effective. More side-effects were reported with the non-prescription sedative (Compoz) and with the prescription anti-anxiety medicine (chlordiazepoxide—sold under the trade name of Libritabs) than with either aspirin or placebo, they said.

The study sample consisted of 166 general practice patients suffering from mild or moderate symptoms of anxiety, at times accompanied by depression or somatic (emotionally caused) complaints. The investigators were 18 general practitioners in the Philadelphia area, all members of the Private Practice Research Group, all with training in psychopharmacologic research. The study was conducted double-blind, with neither patient nor physician knowing which of the four products the patient was receiving.

The trial "clearly indicates the relative ineffectiveness of Compoz and aspirin in the short-term symptomatic relief of mild to moderate anxiety, tension, and related complaints in private general practice patients," the report said.

Compoz contains scopolamine, and the researchers said that this can cause blurred vision and increased urinary retention and has a potential in higher dosages and with prolonged usage for causing mental confusion, excitement and delirium. Aspirin, when taken in relatively high doses for long periods of time, they said, may produce gastric distress, gastritis and "even gastric ulcer."

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adjunctive
Librax® 

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Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions

in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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History of Medicine Society Organized at UMC

A History of Medicine Society has been organized at the University Medical Center, according to Dr. John Y. Gibson, president. Dr. Kenneth Bennett is serving as vice president of the newly-formed group.

The first meeting is scheduled for Mar. 1 in the Thompson Conference Room of the Ole Miss Alumni House on the medical center campus. A cocktail hour will be held at 6:30, followed by a dinner. A fee of \$5.00 will be charged for the dinner meeting and will also cover the year's membership dues.

Guest speaker for the meeting will be Dr. James D. Hardy, professor and chairman of surgery at the University. Dr. Hardy will discuss heart replacement from a historical standpoint.

The group plans to hold quarterly meetings which will be open to any interested persons. For more information, contact Dr. Gibson at UMC, 2500 N. State Street, Jackson 39216.

AMA Scientific Journals Are Now Metric

The metric system, which has spread over most of the world, is gaining steadily—if slowly—in the United States, as well.

The latest step in this direction is being taken by the *Journal of the American Medical Association (JAMA)* and the 10 AMA specialty journals. Starting in January, the weekly *JAMA* and the monthly specialty publications use only metric units of measurement.

Banished are inches and ounces, yards and pounds, pints and degrees Fahrenheit, and all the other units of what frequently is called the English or "customary" system. Until now either system has been accepted, although customary units have been accompanied by their metric equivalents in parentheses.

Is the change to all metrics likely to cause readers problems?

"Initially," admits Dr. Hugh H. Hussey, editor of *JAMA*. "It will be like learning a new language for some physicians, until they get used to the system and learn to think in terms of metric units."

But he added that it won't be a completely unfamiliar language, because the AMA journals and

the medical and pharmaceutical professions have been using metric units increasingly for some years. In fact, the AMA first began urging the use of metric measurements nearly 95 years ago, in an official action by the House of Delegates in 1878.

Charles F. Chapman, assistant managing editor of the AMA journals, points out that elimination of nonmetric units will end one source of confusion, that of dealing with measurements in two unrelated systems. In some cases, the systems have even been mixed in the same sentence, as when the dosage of medication is calculated in grams or milliliters per pound of body weight.

"Undoubtedly, we'll run into occasional problems," Chapman said, "but our staff will meet them as they arise. We have been using the all-metric policy in editing manuscripts for a few months already with no trouble so far."

The "Information for Authors" panel that appears in each issue has designated metric as the required system since early fall. Any articles received that use nonmetric units, Chapman said, either will have measurements converted to metric by staff editors, or will be returned to the author for correction.

One portion of *JAMA*, the Medical News section, has been using all-metric measurements for several years.

The section has its own staff of reporters who gather and summarize news of medical interest from around the country, and therefore does not solicit or use outside contributions.

"Most of the people our reporters interview are active in research, so that 80 to 90 per cent of them are using metrics themselves to begin with," explained Jaan Kangilaski, Medical News section editor. "Any measurements we get that are not already in metric, we convert when we write the story."

There is little hope of escaping the metric system, if you're of a mind to, or of staying off its eventual everyday use in the U. S.

In a report to Congress in 1971, Maurice H. Stans, then Secretary of Commerce, noted that a three-year study his department had just completed showed that our country already is metric in some respects, and is becoming more so. The question, he said, is not whether the United States should "go metric"—but rather, whether we should do so aimlessly, or by a careful, deliberate, and nationally coordinated plan.

Since World War II, most countries of the world that were not already metric have adopted the system or committed themselves to do so. Even Britain and its Commonwealth partners are making the switch. The United States stands with

such nations as Sierra Leone, Ghana, South Yemen, and Trinidad in holding back.

Significantly, no nation has ever abandoned the metric system after adopting it.

Even some segments of our own society have yielded to the sensibleness of the system. American medicine and other sciences, for instance, have long used metric measurements, with great benefit to world "trade" in scientific ideas. The military to a large extent uses metrics, and the sizes of photographic film and lenses are given in millimeters.

The latest attempt to make metrics the predominant language of American measurement was a bill passed by the Senate last August. The bill, which would have established a National Metric Conversion Board to direct and coordinate a 10-year conversion to metrics, was referred to the House Committee on Science and Astronomics, where no action was taken before Congress adjourned for 1972.

Blood Fat Levels Studied

The average level of plasma lipids in most American men and women is undesirably high, and enough evidence is now available to bar further temporizing with this major national health problem, says a joint statement released by the American Medical Association's Council on Foods and Nutrition and the Food and Nutrition Board of the National Academy of Sciences-National Research Council.

"Coronary heart disease is the major public health problem in the United States and in many other countries. In 1970, for example, some 666,000 Americans, of whom about 171,000 were under the age of 65, died of coronary heart disease (CHD) and many more were disabled by the same disorder. It is particularly disturbing that many relatively young Americans in their most productive years are killed or incapacitated by this disease," the statement declares.

The statement cited several risk factors associated with susceptibility to CHD—factors that are subject to control. These include an elevation in blood fats, especially plasma cholesterol, hypertension, heavy cigarette smoking, obesity and physical inactivity.

"The evidence is not sufficient to quantitate the benefits that may be expected to come from modifying these various risk factors, but the seriousness of the situation demands that all reasonable means be used to reduce the conditions that contribute to risk of CHD.

"There is abundant evidence that the risk of developing CHD is positively correlated with the level of cholesterol in the plasma. This risk, independent of other risk factors, is relatively small at levels less than 220 mg per 100 ml, but increases progressively with each increment in plasma cholesterol above this level.

"Approximately one-third of American men, and a less definitely known proportion of women, consuming their usual diets, maintain plasma cholesterol levels at or below this figure.

"There is extensive evidence that the level of cholesterol in the plasma of most people can be lowered by appropriate dietary modifications. Generally, such lowering can be achieved most practicably by partial replacement of the dietary sources of saturated fat with sources of unsaturated fat, especially those rich in polyunsaturated fatty acids, and by a reduction in the consumption of foods rich in cholesterol."

Saturated fats, mostly animal fats, can be defined roughly as those that are solid at room temperature. Unsaturated fats, mostly vegetable oils, are generally liquid at room temperature.

Cholesterol is found in foods of animal origin such as dairy products, meat, poultry, eggs and seafood.

Prevention is of much greater benefit than treatment in the control of cholesterol in the blood, the statement says:

"As would be expected in dealing with a chronic disease of this kind, early intervention appears to be more effective than intervention after the disease is evident."

The two groups recommended a five-point program:

1. Measurement of blood fat levels should become a routine part of all physical examinations, beginning in early adulthood and repeated at intervals throughout life.

2. Persons falling into risk categories on the basis of blood fat levels should be made aware of their risk and should receive appropriate dietary advice.

3. The dietary advice should not compromise the necessary intake of essential nutrients.

4. These recommendations are practical only if modified and ordinary foods required for such diets are readily available in the grocery store, easily identified by labeling. Any legal and regulatory barriers to the marketing of such foods should be removed.

5. High priority should be given to research which will determine positively the extent to which the modification of blood fats, as well as modification of other risk factors, can reduce the risk of CHD.

ACS Schedules 16 Trauma Seminars

Sixteen seminar programs to provide continuing education for non-specialist physicians in Life-Saving Measures for the Critically Injured will be sponsored in 16 different cities throughout the United States in 1973 and 1974 by the American College of Surgeons' Committee on Trauma in cooperation with departments of surgery of medical schools.

The college has developed the Model Curriculum Content for a seminar program of four to five days' duration, designed to teach the most appropriate life-saving diagnostic and therapeutic principles and skills for the treatment of the critically injured patient.

The departments of surgery will provide the individual seminars, gearing them to fill emergency medical care continuing education needs of physicians practicing in rural areas or where multi-specialty teams are not readily available. Though aimed at the non-specialist general practitioner and emergency department physician, the seminars will be advantageous to surgical specialists and internists.

The seminar curriculum is divided into three broad areas: (1) Assessment of the critically injured and causes of death soon after injury—airway and respiratory problems, hemorrhagic shock, and brain damage; (2) Life-threatening injuries to the head, chest, abdomen and extremities; and (3) Late life-threatening complications, including pulmonary insufficiency from non-thoracic trauma, impaired kidney function complicating patient management and complications following blood transfusions. Hyperalimentation and intensive care of the trauma patient also will be covered.

Seminar sites will be dispersed throughout the country to make one or more seminars easily accessible to all U. S. physicians.

Audio-visual aids will be used and the Committee on Trauma's new manual, *Early Care of the Injured Patient*, will be given to each registrant at the seminars.

The first seminar is scheduled for Mar. 26-29, 1973, at Washington University, St. Louis. Registration fee for the St. Louis course is \$50, which includes three luncheons. Registration for this seminar is limited to 200.

Other seminars in the South scheduled for 1973 include:

June 17-20—Medical University of South Car-

olina, Charleston. Directors: Dr. Curtis P. Artz, professor and chairman, and Dr. Max Rittenbury, associate professor, department of surgery.

Nov. 14-17—University of Tennessee, Memphis. Director: Dr. Harwell Wilson, professor, division head and chairman, department of surgery.

Nov. 26-29—University of Texas Southwestern Medical School at Dallas. Directors: Dr. G. Tom Shires, professor and chairman, and Dr. Ronald C. Jones, associate professor, department of surgery.

Seminars scheduled or tentatively scheduled for 1974, and their dates, are:

Jan. 14-17—Tulane University, New Orleans. Directors: Dr. Theodore Drapanas, professor and chairman, and Dr. Martin S. Litwin, associate professor, department of surgery.

Mar. 13-16—University of South Florida, Tampa. Director: Dr. Roger T. Sherman, professor, department of surgery.

The seminars will be credited by the AMA toward the Physicians Recognition Award, and by the American College of Emergency Physicians for continuing education requirements for its members.

Detailed announcements showing registration fees, advanced registration forms, and housing information are available from the Trauma Division, American College of Surgeons, 55 East Erie Street, Chicago, Ill. 60611.

Dr. Oscar P. Hampton, Jr., assistant director and Director of the Trauma Division of the American College of Surgeons provides staff support for this and all trauma programs.

The purpose of the American College of Surgeons' Committee on Trauma, since its inception in 1922, is to carry on a conscientious campaign of professional and public education to achieve improvements in all phases of care of the injured at the scene of the accident, transportation to the hospital, emergency department care and in the hospital.

AMA Plans Medical Ethics Congress

The AMA Judicial Council's fourth national congress on medical ethics will be held April 26-28, 1973, at the Washington Hilton in Washington, D. C.

Among the subjects to be discussed will be: What Is Medical Ethics; How Does the Student or the Resident or the Nurse See Medical Ethics; The Teaching of Medical Ethics; Medical Ethics and the New Biology; Voluntarism vs Compulsion; etc. A skit will be presented on "Grand Rounds on Medical Ethics."

JOURNAL

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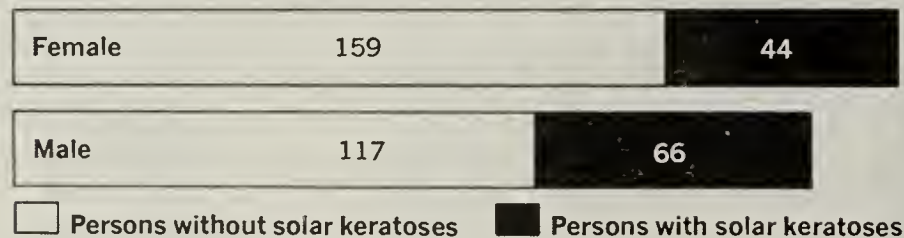
What it means to live and work in Tipton County, Tennessee

**Persons who are white and
over 40 have one chance in four
of having solar keratoses...
which may be premalignant**

An epidemiologic study* conducted in Tipton County, Tennessee, revealed that 28.5% of white persons over 40 had solar keratoses; most had multiple lesions. Cluster sampling projected an estimated prevalence of 32.5% for white males and 19.5% for white females.

Though this is an unusually high percentage of affected persons, these lesions can occur in any white population, wherever people work or play out of doors.

**Prevalence of solar keratoses in white persons
over 40 in Tipton County, Tennessee**



*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey.





ORIGINAL PAPERS

Neurosurgical Emergencies

FORREST T. TUTOR, M.D.

Tupelo, Mississippi

THE BRAIN DOES not tolerate quick elevations of intracranial pressure. If these rapid, severe increases in pressure are not quickly relieved, death will soon result. The brain is enclosed in a bony box without much extra room and any sudden severe increase in intracranial pressure will result in transmitted pressure to the vital life-preserving centers of the brain stem.

The extra-dural hematoma is a good example of the emergency produced by sudden severe increased intracranial pressure. The extra-dural hematoma results from division of the middle meningeal artery from a fracture or distortion of the skull with resulting high pressure arterial bleeding into the extra-dural space. The following case is representative of the typical history of an extra-dural hematoma.

Case No. 1: R.H., a 13-year-old white male, was visiting friends in Tupelo. He was riding a bicycle rapidly down a long hill and had a wreck. He was rendered unconscious for a few minutes, then regained consciousness and seemed alright on the way to the hospital to see one of the pediatricians. The pediatrician saw the child in the emergency room and found him to be neurologically negative and sent him to the radiology department for skull x-rays. He called me to take a look at the child. I found him to be comatose with a dilated and fixed right pupil with weakness and spasticity of the left extremities. The child

was rushed to the operating room and a burr hole placed on the right side, the side of the dilated pupil. A huge extra-dural hematoma was en-

The author discusses neurosurgical emergencies in which a sudden elevation of intracranial pressure occurs in compound depressed skull fractures and also talks about spinal cord injuries. He emphasizes the importance of time lapse between pathologic insult and treatment with regard to final results and gives several illustrative case histories.

countered and evacuated. The dura was depressed two inches from the inner table of the skull. The child woke up on the table and started talking. At the termination of the surgery he was alert, the right pupil was reacting and he was otherwise neurologically negative. He has been completely normal ever since. The skull film was read as normal and it was only because of attention being focused on the region of the middle meningeal that a linear fracture was seen in the temporal region.

The important events of this case are the head injury with the concussion, the patient's regaining consciousness, then rapidly lapsing into coma with a dilated and fixed pupil with a contralateral hemiplegia and spasticity with a fracture in the region of the middle meningeal artery.

Presented before the Northeast Mississippi Medical Society, September 1972.

From the Department of Surgery, North Mississippi Medical Center, Tupelo, Miss.

The child would likely have been dead or irreversibly damaged within an hour's time. When the above criteria are partially or completely filled, quick diagnosis and evacuation are imperative.

Compound depressed skull fractures should be considered a real emergency, not because of the depressed skull fracture alone, but because of the great danger of meningitis or a brain abscess as a complication. Whenever there is a wound of the head that lacerates the scalp and produces an underlying depressed skull fracture, there is always contaminated material introduced into the depth of the wound. In almost every case of compound depressed skull fracture there is foreign material in the form of dirt, hair, pieces of hats or caps introduced into the wound. If this contaminated debris is not removed quickly and the wound irrigated well and the patient started on antibiotics, meningitis or brain abscess will soon result. If proper measures are taken to prevent such complications, these patients will almost always do well. Large doses of antibiotics should be given intravenously or intramuscularly as soon as the patient is examined. An immediate consultation with a neurosurgeon should be obtained and immediate surgery carried out for proper debridement of the wound with removal of the debris. There is often an accompanying intracerebral hematoma which will serve as excellent culture media for the contaminated material. This problem is well illustrated by case number two as follows.

SECOND CASE REPORT

Case No. 2: J.P., a 36-year-old white male, was admitted with a history of having been involved in an automobile accident in which his automobile was struck by another vehicle. An argument developed between the patient and the driver of the other vehicle and the other individual reached into his pickup truck for an ax with which he struck the patient on the forehead. The patient was not rendered comatose but was dazed. He was brought to the emergency room, where he was found to be alert and neurologically negative. X-rays of the skull showed a depressed skull fracture of the left frontal region and there was an overlying laceration. The patient was placed on Polycillin 500 mg. IM Q4H. After x-rays of the skull were made which showed the compound depressed skull fracture, the patient was taken immediately to the operating room where the wound was explored. The bone was depressed approximately an inch and there was an underlying laceration of the dura with a small hematoma. There

was contaminated material in the depths of the wound. The hematoma and necrotic brain were aspirated, and the tear in the dura was sutured. The bone fragments were removed. Postoperatively the patient did extremely well. He was discharged four days after surgery and later returned for removal of his sutures. He has continued to do well and has shown no signs of meningitis or brain abscess.

There is probably no neurosurgical problem that can do better if handled correctly or worse if handled improperly than the compound depressed skull fracture.

SPINAL CORD

In any discussion of neurosurgical emergencies, the spinal cord should not be neglected. It is well known that the treating physician has only a few hours of grace in which to reverse many conditions producing interruption of function of the spinal cord. Many cases of transverse myelitis are, of course, irreversible if there is a total anatomical or physiological division of the spinal cord, but every effort should be made to give these patients the benefit of the doubt. This emergency situation is best exemplified by the epidural abscess of the spinal cord. Case number three is about such a patient.

Case No. 3: W.R., a 52-year-old white male, had several sebaceous cysts removed under local anesthesia at a nearby hospital. Sometime thereafter he was found to be paraplegic with complete loss of motor function of the lower extremities. The patient apparently had noted gradual weakness in his legs for several days prior to complete loss of function. At this time he also lost control of his bowels and bladder. He was not transferred for neurosurgical evaluation until four days later.

At the time he was seen in the emergency room he had a total transverse myelitis with a sensory loss up to the level of the C-6 dermatome with no movement of the lower extremities, no reflexes in the lower extremities, with only diaphragmatic respirations and ability to flex the arms but not to extend them.

An emergency myelogram was carried out which showed a positive Queckenstedt. The protein was greatly elevated at 600 mg. per cent and there was total block of the flow of dye at the level of C6-C7. It was felt that he had probably suffered irreversible damage to the spinal cord and that surgery would probably be of no benefit to him, but it was felt that an emergency decompression should be carried out. At the time of surgery a collection of pus was encountered in the lower cervical region. Postoperatively there

was no change in the neurological status of the patient. Throughout his long hospitalization there was no sign of improvement, and he was later transferred to a nursing home. He remained paraplegic and recently died. The exact cause of his death is not known, but he almost certainly died from a complication of his paraplegia, most likely urinary tract infection.

If this patient could have been seen and decompressed prior to loss of all function, he may have recovered.

SUMMARY

In summary, the neurosurgical emergencies have several features that have been emphasized. One of the more important is the time between pathologic insult and treatment with regard to final results. Infection secondary to trauma can be greatly reduced with prompt debridement with irrigation and repair of depressed skull fractures or injuries to the spinal cord. ★★★

605 Garfield Street (38801)

MEDICAL PROGRESS

As the doctor examined the patient he remarked, "You seemed fascinated by that medical magazine out there in my waiting room."

The patient responded, "I certainly was. The issue you have out there announces the discovery of ether."

HELP NEEDED!

Two executives ran into each other at the door of their psychiatrist's office.

"Hello," said one. "Are you coming or going?"

"If I knew that," said the other, "I wouldn't be here."

REMEMBERING WHEN

Parents: People who lie awake wondering if daughter's dreamboat is one of those ships that makes a pass in the night.

Laparoscopy

IRA LAMAR COUEY, M.D.
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LAPAROSCOPY is the endoscopic examination of the pelvic organs by the transabdominal route.

Endoscopic examination of body cavities became established around the turn of the century. In 1901 Kelling published in Hamburg an experimental study of endoscopic exploration of the abdomen carried out on a dog. In 1910 Jacobaeus made the first clinical application of the method exploring the abdomen. Nordentoeft (1912) of Copenhagen used this method for observation of female genital organs in the Trendelenburg positions. In 1944 Decker introduced culdoscopy. In the same year Palmer of Paris carried out his endoscopic approach to the pelvis through the abdominal route in the lithotomy-Trendelenburg position after gaseous distention of the abdomen and employed a cannula to elevate the uterus.

Although this procedure may frequently obviate exploratory laparotomy, it can also avoid serious delay in applying proper surgical therapy.

The principal indications are:

(1) Suspected tubal ectopic pregnancy (important to make early diagnosis of Intact Tubal Pregnancy).

(2) Investigation of certain types of sterility due to suspected adnexal disease.

(3) Primary or secondary amenorrhea associated with developmental anomalies.

(4) Suspected pelvic endometriosis of limited extent.

(5) Assessment of chronic pelvic inflammatory disease.

(6) Differential diagnosis of ovarian, uterine, or other masses of small size, or those complicating the first three months of pregnancy.

(7) Unexplained pelvic pain.

(8) Differential diagnosis of some causes of ascites.

Pneumoperitoneum of short duration appears to have a transitory effect on the vital capacity and the ECG tracings. Because of the elevation

of the diaphragm produced by the pneumoperitoneum and the steep Trendelenburg position, adequate pulmonary ventilation is essential and inhaled oxygen concentration should be high. By splinting of the diaphragm and increased abdominal pressure there is decreased venous return to

The author gives a brief background on development of the procedure of laparoscopy, the endoscopic examination of the pelvic organs by the transabdominal route. He discusses principal indications, contraindications, dangers and complications, use in treatment of infertility, tumors and sterilization.

the heart. Inadequate ventilation may, therefore, precipitate cardiac arrhythmia. Some suggest an injection of 0.4 to 0.8 mg. of atropine just before CO₂ insufflation, noting that gaseous distention may precipitate reflex vagal stimulation with resultant bradycardia and hypotension. This may also necessitate a rapid infusion of about 700 cc. of Ringers Lactate at the time of induction of anesthesia to guard against hypotension.

Laparoscopy, then, is contraindicated if the patient has circulatory or respiratory deficiencies which render this procedure a hazard.

Lesions which contraindicate laparoscopy are:

(1) Diaphragmatic hernia.

(2) Some previous abdominal operations.

(3) Acute generalized peritonitis or past history of it.

(4) Chronic tuberculous peritonitis.

Some dangers and complications are:

(1) Complications of introduction of the needles.

a. Hemorrhage from puncture of abdominal wall vessels with hematoma formation.

b. Intestinal perforation with needle and with trocar.

From the Department of Obstetrics and Gynecology, Oxford-Lafayette County Hospital, Oxford, Miss.

(2) Bleeding from tubal cauterization is one of the more serious complications with many authors (5 of 200 cases).

(3) Complications of the introduction of gas.

a. Gas embolism from perforation of a parietal vessel (Goulen and associates noted four cases of cardiac arrest due to CO₂ embolism).

b. Parietal emphysema.

c. Injection of gas into intraabdominal viscera, especially the omentum.

(4) Complications from introduction of excessive quantities of gas in error.

a. Aggravation of existing hernias.

b. Pneumothorax.

c. Rupture of diaphragm.

d. Respiratory and circulatory embarrassment.

The necessary points for a successful procedure include general anesthetic; good relaxation of the abdominal wall; adequate pneumoperitoneum; means of manipulating the uterus; emptied colon; and emptied bladder immediately before the procedure.

In a study conducted at the University of Michigan by Peterson and Behrman over a two-year period, 276 laparoscopies were done to evaluate the infertile patient. Analysis revealed that 60 per cent of all patients with unexplained infertility had pelvic abnormalities that were detected for the first time by laparoscopy.

ENDOMETRIOSIS

One of three patients with unexplained infertility will have endometriosis, the extent of which is minimal and cannot be detected by pelvic exam or suspected from the patient's history.

One of five patients will have pelvic adhesions that could easily affect tubal-ovarian motility and ovum pick-up. Many will give no history of a predisposing cause.

Effective management of the patient with oligo-ovulation or secondary amenorrhea has been greatly facilitated by the laparoscope. Not only can the diagnosis of polycystic ovarian disease be confirmed, but the occasional patient with such ovaries of normal size can be readily identified. More important is the fact that half of these patients may demonstrate anatomically normal ovaries, even though they show no evidence of follicular activity. Biopsy can give definitive diagnosis and at times this may be therapeutic with establishment of menstruation.

Follow-up observation in infertile patients should include:

(1) Tuboplasty—Before procedure to see if it necessary. Follow-up evaluation.

(2) Post medical treatment for ovarian dys-trophies.

Suspected congenital anomalies including absence of the vagina are indications for laparoscopy.

TUMORS

Laparoscopy permits establishment of the origin of small tumors (uterine, ovarian, etc.), facilitates biopsy, and gives an opportunity to aspirate follicular or other cysts. Aspiration of a small cyst followed by cystological exam can give accurate information about the histogenesis of the cyst.

Ascites and multiple tumor masses contraindicate laparoscopy.

Compared with the classic methods of sterilization via laparotomy or colpotomy, operative laparoscopy appears to offer decided advantages: hospitalization is brief; short-acting general anesthetic is used; there is little or no postoperative discomfort; a small incision leaves no unsightly scars; and good visualization of all the pelvic organs can be obtained during the procedure. The results of sterilization with laparoscopy are, so far, better than the more classic method. (Pomeroy—failure 1 in 50 at c-section; 1 in 350 non c-section.)

Peterson and Behrman at the University of Michigan had one failure in 186 patients by laparoscopy. This patient had only the tubes cauterized without resection. (Steptoe reports a 10 per cent tubal patency in a series of 30 patients who had tubal cauterization without resection.) Thompson and Wheelless had one failure in 1,000 patients.

★★★

2200 South Lamar (38655)

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Evaluation of Several Methods of Surgical Scrub

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THIS STUDY was initiated to evaluate the effectiveness of several methods of surgical scrub employed for many years at the Department of Orthopedic Surgery at The University of Iowa.

All surgical scrubs in the initial phase of this study were done by the author. Each method was limited to 10 minutes or less. The method of bacteriological evaluation employed was that described by Gale et al.¹ Prior to the surgical scrub the fingertips of the thumb and fingers were touched to the surface of the agar in such a manner that the fingernails broke the surface of the agar. This was done for both the right and left hands using separate blood agar plates. Immediately after the surgical scrub a new set of blood agar plates was imprinted. Sterile surgical gloves were then put on and the wrists secured with rubber bands. No attempt was made to keep the outside of the gloves sterile. After one, two, and three hours the gloves were removed and new sets of blood agar plates were imprinted. A new pair of gloves was used after the one and two hour plates were imprinted. Pre-powdered disposable gloves were used which are supplied sterile by the manufacturer. As a control, blood agar plates were imprinted initially, hands were held in the air for 10 minutes but no scrub employed, and then a second set of plates were imprinted. Following this, sterile gloves were put on and subsequent plates were imprinted after one, two and three hours. Only one scrub or control was done each day. Five repetitions of each method of scrub and five controls were done and the results of the five repetitions were averaged. After the three hour plates were imprinted, all 10 of the plates were incubated at 37° C for 24 hours. The numbers of bacterial colonies per fingerprint were then counted and totals for the 10 digits obtained. In a few cases there was such luxuriant growth on the pre-scrub plates that the colonies

tended to merge. In these cases where the colonies per fingerprint exceeded 50, estimates were made as accurately as possible. The colony counts were done with the aid of a 2X magnifying lens. Greater than 95% of the colonies were *Staphylococcus epidermidis*.

Three methods of surgical scrub were in use at the time this study was initiated. These consisted of use of either Phisohex (3% hexachlorophene detergent lotion), 10% aqueous solution of polyvinylpyrrolidone iodine, or scrubbing with tincture of green soap, drying with a sterile towel and immersing the hands and forearms in cylindrical tanks containing HIACA solution. HIACA solution is prepared by the hospital pharmacy and is composed of 70% isopropyl alcohol, 0.5% cetyl alcohol and 0.1% hexachlorophene. Three gallons of HIACA solution are placed in each of two cylindrical tanks, used for five days and then discarded. When Phisohex or PVP iodine were used alone, fingernails were cleaned and a three cycle scrub using a brush and lasting seven minutes was done, the hands were rinsed under running water, dried with a sterile towel and the blood agar plates imprinted. When Phisohex, PVP iodine, or tincture of green soap scrubs were followed by immersion in HIACA solution, the hands were dried prior to immersion. After immersion in HIACA solution the hands were held in the air for three minutes prior to imprinting the blood agar plates. When the HIACA dip is used prior to surgery the hands are not dried with a towel but simply air dried for several minutes before putting on gown and gloves. To test the effectiveness of HIACA solution by itself without prior surgical scrub or cleaning of the fingernails, five trials were carried out employing only a two minute period of immersion in HIACA solution.

In the second phase of this study one method, Phisohex scrub followed by two minute immersion in HIACA was tested on seven individuals participating in two surgical procedures of total hip replacement arthroplasty on two different days. Two of the surgeons were the same for both procedures and thus nine sets of data were ob-

Dr. Gower is in the private practice of orthopedics in Duluth, Minnesota. This paper was prepared during his period of residency at The University of Iowa College of Medicine.

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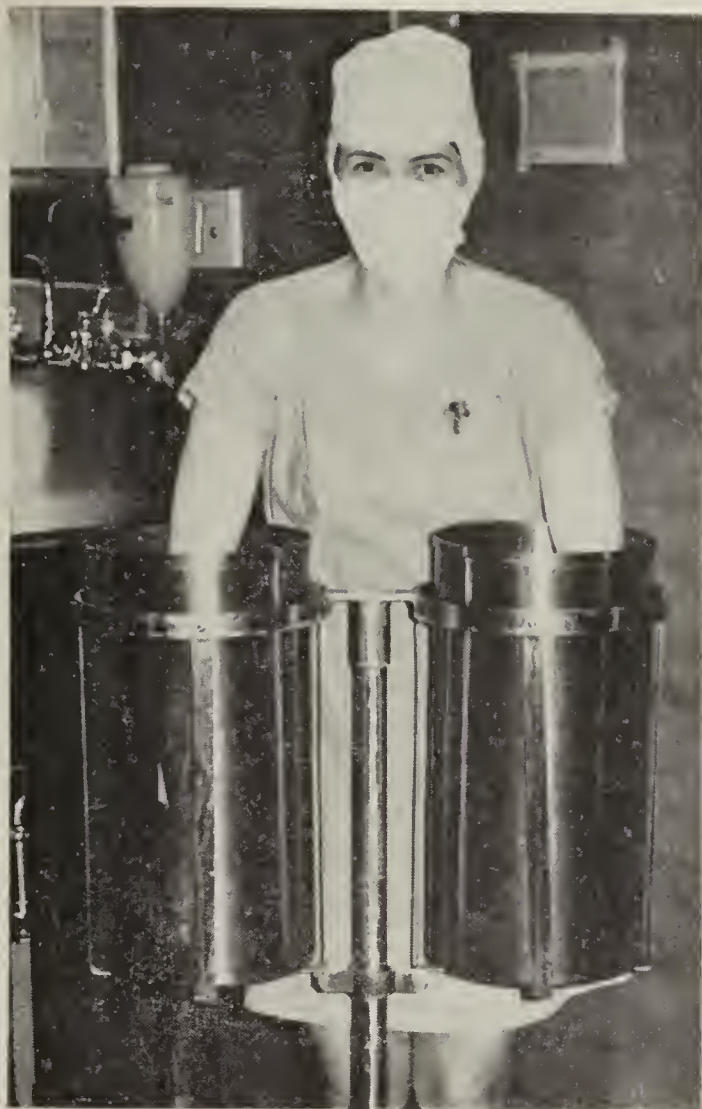


Figure 1. Surgical nurse dipping hands and fore-arms in HIACA solution for 2 minutes.

tained. Blood agar plates were imprinted before scrub, after immersion in HIACA solution, and two hours later after the completion of the surgery.

The scrub index represents the number of bacterial colonies expressed as a percentage of the total number of colonies in the pre-scrub sample. The averages of five separate tests of each method are shown in Table I. The colony counts for the control increased during the three hour period



Figure 2. The fingertips are touched to the surface of a blood agar plate in such a fashion as to break the surface with the fingernails.

while wearing gloves. When Phisohex scrub alone was used there were 26% as many colonies present after scrubbing as before scrubbing but only 2% as many after one and two hours and 1% after three hours of wearing gloves. This appears to represent a continuing antibacterial action of Phisohex during the three hours following scrub that was not observed when using PVP iodine. A two minute immersion in HIACA solution without prior scrub or cleansing of the fingernails was more effective than either Phisohex or PVP iodine scrub alone and the excellent antibacterial effect was maintained during the three hours after scrubbing. Phisohex, or PVP iodine or tincture of green soap scrubs, when followed by two minute immersion in HIACA, were slightly better than HIACA solution alone.

Table II indicates the results of nine trial uses of Phisohex scrub followed by two minutes immersion in HIACA solution in two total hip arthroplasty operations. There was no growth on any of the blood agar plates imprinted just prior to surgery nor on six out of nine following the operation.

Use of two minute immersion in HIACA solution following surgical scrub is now standard procedure in the Department of Orthopedic Surgery. Skin irritation from use of HIACA solution has been a very infrequent problem. It appears

TABLE I
SCRUB INDEX

	Pre-scrub (Per Cent)	Post-scrub (Per Cent)	1 Hour (Per Cent)	2 Hours (Per Cent)	3 Hours (Per Cent)
Control (no scrub)	100	101	125	127	129
Phisohex (3 per cent hexachlorophene)	100	26	2	2	1
PVP iodine	100	38	53	35	35
HIACA	100	3	0	1	1
Green soap plus HIACA	100	0	0	0	4
Phisohex plus HIACA	100	0	0	0	1
PVP iodine plus HIACA	100	0	0	0	1

TABLE II
 SCRUB INDEX BEFORE AND AFTER
 TOTAL HIP REPLACEMENT ARTHROPLASTY

	<i>Pre-scrub</i> (Per Cent)	<i>Post-scrub</i> (Per Cent)	<i>Post-surgery</i> (2 hours) (Per Cent)
R.J.	100	0	0
R.J.	100	0	19
J.T.	100	0	0
J.T.	100	0	0
T.O.	100	0	12
D.C.	100	0	1
B.W.	100	0	0
R.C.	100	0	0
M.S.	100	0	0

this method improves significantly on the results achieved by surgical scrub alone.

Reduction of the bacterial flora of the patient's skin and of the surgeon's hands to the lowest possible level is the objective of pre-operative scrubbing and use of antiseptics. Attention to detail in the use of antiseptics can result in very effective control over the bacterial flora of the skin. The continuing quest to reduce the incidence of wound infection in clean surgical cases to the absolute minimum demands an interest on the part of every surgeon in understanding and controlling the many factors that play a role in the bacteriological environment of the operating room.

SUMMARY

A bacteriological evaluation of several methods of surgical scrub has been described. The use



Figure 3. Typical appearance of the colonies of *Staphylococcus epidermidis* which are obtained from one fingertip prior to surgical scrub.



Figure 4. Bacterial colonies are present on the pre-scrub blood agar plate and absent on the plates obtained after Phisohex scrub and 2 minute dip in HIACA. The top plate shows absence of bacterial growth 3 hours after scrubbing.

of HIACA solution, containing 70 per cent alcohol, as a two minute post-scrub dip is an effective method of reducing the bacterial flora of the surgeon's hands.

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Administrative Aspects of General Medical Practice Under England's National Health Service

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University, Mississippi

*There is no limit to the need for medical care;
and at nil price the demand for it is infinite.*
J. ENOCH POWELL

AMID THE ALARM and/or anticipation (depending upon the point of view) now widely expressed concerning proposals for a national health insurance program in the United States, it is easy to overlook the fact that Great Britain has been operating a national health insurance scheme, with variations, for more than 60 years! Further, the more comprehensive National Health Service is now approaching its 25th birthday. It seems appropriate, therefore, to look to England for some idea of what medical practice is like under a national system. The author had this opportunity during a five-month stay there in the last half of 1972.

The more dramatic problems associated with the National Health Service have received wide attention in the press over the years. It is my intention to provide some views of the more practical aspects of the day-to-day administration of a general medical practice in England today, and a look at some changes which might occur when the NHS undergoes a major reorganization effective in 1974.

The most important immediate government body from the point of view of the general medical practitioner is the executive council. This is the administrative agency which pays his salary, provides supplies, arbitrates disputes, and (where necessary, and not exclusively) administers discipline. The place of the executive council in the present NHS is shown in Figure 1. It will be apparent from examination of Figure 1 that health care delivery in England is, in fact, accomplished

through three channels: the hospital boards,* which see to the hospitalized patient and employ the medical specialist, the local health authorities

The author has described briefly some of the day-to-day aspects of administration of the English National Health Service as they affect the general medical practitioner in that country. Included are terms of service, paperwork, and methods of organization of the health services.

which may be very roughly equated with our county health departments, and the general practice services.

An executive council will be made up of providers of care and consumers, some appointed from above, some elected by members of the pro-

Present Structure of the British National Health Service

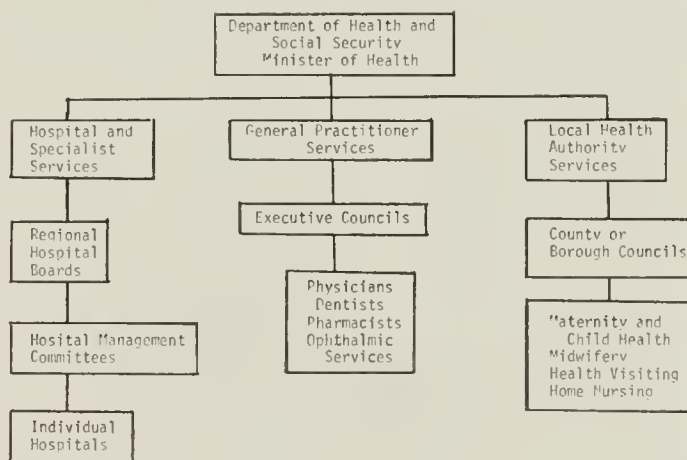


Figure 1

From the Department of Health Care Administration, School of Pharmacy, University of Mississippi, University, Miss.

* Note that teaching hospitals are operated under a separate board of governors.

fessions. The executive council acts officially at its quarterly meetings, with most of the background work taking place in committees. Executive councils vary considerably in size, but each has a minimum full-time administrative staff consisting of the clerk, plus appropriate staff depending on size of the area. The committee structure of a typical executive committee appears in Figure 2.

I attended a quarterly meeting of an executive council. Such meetings are usually open to the public, but I was the only nonmember in attendance with the exception of two newspaper reporters who regularly "cover" such meetings. Some of the flavor of the proceedings may be gained by a brief resume from the agenda:

(1) Apologies (for not attending) from two physicians, one dentist, one consumer—the committee totals 30.

(2) Consideration of previous minutes.

(3) Committee proceedings—The most important, as expected, was the Finance and General Purposes Committee, which reported that:

A. Permission was refused for another physician to join a local partnership as the supply was already adequate.

B. A three-man group practice was approved a grant to improve their premises.

C. A five-man group practice was allowed to change their hours of service and to hire an M.D. as an assistant.

(4) The reorganization of the NHS (see below) was discussed at some length and a four-man

Executive Council Committee Structure

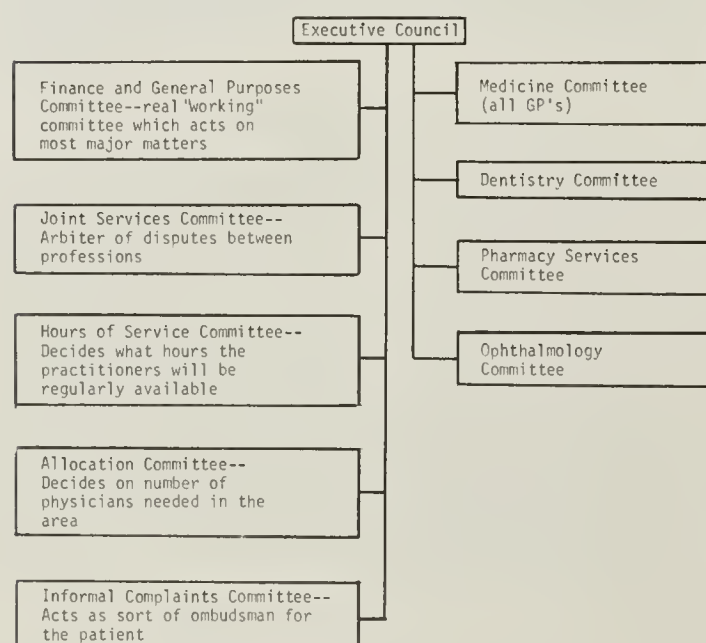
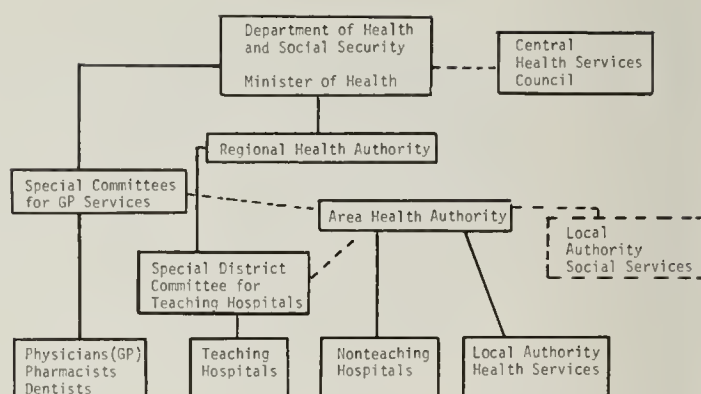


Figure 2

The Reorganized National Health Service



Source: Shortell and Gibson
Broken Lines: Coordination and Liaison
Solid Lines: Direct Control

Figure 3

working party appointed to study the 65-page description of the proposals.

(5) An appointment was made to the Joint Services Committee, while noting that it "hardly ever meets."

(6) Discussion was held concerning the limitation of sales of hypodermic syringes because of their potential use in drug abuse. A consumer member asked if some even more dangerous method of administration would then be used. The matter was dropped.

(7) The next meeting date was set and the meeting adjourned.

This, then, is the body which officially administers the NHS at the local level. In fact, of course, the bulk of the service runs on its own momentum and it is generally agreed that within the limits of available resources (which may be quite limited) the general practitioner has freedom to practice medicine as he believes best, ostensibly without having to be concerned with the financial side. As a leading proponent of even greater social control puts it, the principles on which the NHS is based "take medicine out of the market place."¹ Yet the concern still exists in the U. S. of "control by bureaucrats," declining working conditions, etc. On the British side of the Atlantic these concerns are fed by statements such as this one by a leading conservative: "The British people, through their Parliament have, at present, willed on the general practitioner an impossible task."² How much is he paid for performing this impossible task?

TERMS OF SERVICE

It requires 128 pages for the complete "Statement of Fees and Allowances Payable to General Medical Practitioners in England and Wales." Obviously it will not be possible even to summarize

all of the terms here. Some items are, however, illuminating. Table I provides articles from the six-page fee and allowance schedule. These are far from complete, but they do provide some idea of the level and complexity of remuneration for the NHS general practitioner. The basic rate is quite low by U. S. standards, certainly. Indeed, the top rate, with all possible additives, hardly compares with the income of the successful general practitioner in the United States. In some ways, however, the NHS scheme is a marvel of the use of the first half of the carrot and stick principle. Additional payments are made to encourage those practice characteristics (group practice, postgraduate education), which the NHS has judged desirable.

Other payments are possible to set up or improve premises, to defray costs of office staff, even for the hiring (if approved) of assistant physicians. In addition, in many areas nurses on the payroll of the local health authority are assigned to and performed their duties in general practitioners' offices.

PAPERWORK

Aversion to paperwork is almost a standard part of the job description of the U. S. general practitioner. It is probably a comment on cultural difference that complaints about "forms" are not at the top of the list of British G.P. problems. This is certainly not for lack of opportunity. Twenty-nine different forms are listed to be used in claiming various fees and allowances such as those in Table I. Two forms, a request for opinion on the fitness of a patient to work, and a request by an executive council for help in locating a patient, are shown here (see Figures 4 and 5).

Prescriptions are written on standardized forms as well. Most are the EC10, but there are a number of other specialized prescription forms which must be used in special cases, such as an outpatient hospital prescription. Prescribing patterns are checked in a superficial way and each physician receives a report comparing the numbers and costs of his prescriptions with national averages. Although it rarely happens, it is possible for the executive council to exact penalties against a physician for "excessive" prescribing. This is usually prevented by informal visits to discuss the prescribing patterns.

The U. S. physician, burdened by insurance, Medicare and Medicaid claims, must wonder about the cost of being relieved of *that* type of paperwork.

NHS REORGANIZATION

In 1974 local government will undergo extensive reorganization in England. At the same time

TABLE I
GENERAL PRACTICE FEES AND ALLOWANCES
—NATIONAL HEALTH SERVICE

<i>Fee or Allowance</i>	<i>Amount in Pounds*</i>
Basic Practice Allowance	
Full rate	1540 p.a.
First 100 patients	307 p.a.
Each patient above 100 up to 999	1.37 p.a.
Additions (full rates), to the basic practice allowance for (<i>inter alia</i>)	
Practice as a member of a group	250 p.a.
Seniority	
First payment	260 p.a.
Second payment: a total of	520 p.a.
Third payment: a total of	840 p.a.
Employment of an Assistant (full-time)	675 p.a.
Standard capitation fee payable for:	
Each elderly patient on the practitioner's list	1.95 p.a.
All other patients on the practitioner's list	1.40 p.a.
Vaccination and Immunizations	0.30-0.45 p.a.
Emergency treatment of another doctor's patient	0.95-1.40 p.a.
Postgraduate Training Allowance	130 p.a.

Source: Statement of Fees and Allowances Payable to General Medical Practitioners in England and Wales. Her Majesty's Stationery Office, 1971.

*Pound has been varying in value between \$2.40 and \$2.50.

the National Health Service will undergo reorganization. Figure 3 shows the planned organizational structure.

It is, of course, not possible to know what the effect of the reorganization will be on the practice of the general practitioner. It is known that the *general* intent of the changes is designed to improve administration of the service and not to affect medical practice appreciably. The separate funding of G.P.'s is seen by some as a potential problem.

CONCLUSION

It has been pointed out that:
The British G.P. acts as the entry point into the health system to a much greater extent than in the U. S.³

He performs this function amid a welter of administrative machinery which, Davies⁴ says, leaves the general practitioner without:

(1) time and facilities necessary to practice good medicine;

DEPARTMENT OF HEALTH AND SOCIAL SECURITY

REQUEST FOR OPINION ON FITNESS FOR WORK

BLOCK LETTERS PLEASE

PARTICULARS OF PERSON REFERRED

For use in Div. Med. Office

D

SURNAME

Mr.

OTHER NAMES Mrs. Miss

ADDRESS

19

AGE

NATIONAL INSURANCE No.

OCCUPATION (if known)

(If not known state National Health Service No.)

TO THE DIVISIONAL MEDICAL OFFICER

Dear Sir,

I am issuing certificates of incapacity for work for National Insurance purposes to my patient named above, but would value another opinion on the question of fitness for work. I should be glad, therefore, if you would arrange for an examination and report.

In addition to clinical and other details given overleaf please note:—

(1) The patient is able to attend a medical examination centre.

(2) I do/do not wish to be present at the examination.

Yours faithfully,

Signed

Name (BLOCK LETTERS)

Address (BLOCK LETTERS)

Telephone No.

NOTES:—(1) Please insert "not" if the patient is unfit to attend.

(2) Please delete as appropriate.

Classification

FOR USE OF REGIONAL MEDICAL SERVICE

Examination

R.M. 3 sent

R.M. 3a sent

R.M. 2a sent

S.L. 50 sent

Form R.M. 7

16.6714 1.72 W.A.S.

Figure 4

(2) a proper level of income; and
(3) financial freedom.

On the other hand, it is widely believed in England, at least among the laymen, that these losses by the physician are more than compensated for through gains by the patient in terms of access to medical care.

Whether the shortcomings of the National Health Service (from the point of view of the general practitioner) might be ameliorated through some alternative administrative machinery or arise from some more basic flaw in government medicine as a delivery system are questions which

should receive the most urgent and thorough study here. ★★★

Department of Health Care Administration (38677)

REFERENCES

1. Murray, D. Stark: Why a National Health Service? London, Pemberton Books, 1971, p. 3.
2. Davies, Wyndham: Health or Health Service. London, Charles Knight and Company, Ltd., 1972, p. 12.
3. Shortell, Stephen M. and Geoffrey Gibson: The British National Health Service: Issues and Reorganization. Health Services Research 6:316, Winter, 1971.
4. Davies, *op cit.*, p. 13.

Surname

Forenames

ADDRESS

N.H.S. No.

Date of Birth

D

M

Y

NATIONAL HEALTH SERVICE

EXECUTIVE COUNCIL

A communication recently sent by the Council to the above named has :

(a) been returned through the Dead Letter Office.
(b) not elicited any response whatever despite a reminder.

The Council are satisfied that they do not know the whereabouts of this person and wish to give notice that in accordance with Regulation 16(2) of the General Medical and Pharmaceutical Services Regulations this patient's name will be removed from your list at the end of six months unless meanwhile you can satisfy the Council that you are responsible for providing general medical services for him.

Should this person apply for treatment after his name has been removed it will be necessary for a fresh acceptance to be sent to the Council.

N.B.:

1. If you know this patient's present address kindly enter it overleaf and return this card to the Council.
2. If you are unable to give a later address you may like to keep this card with the patient's medical record envelope as a reminder. Please keep the medical record envelope until application is made for it.
3. Action under regulation 16 is without prejudice to any earlier removal of the name from your list under any other provision of the regulations (e.g. notification of death, etc.)

Clerk of the Council

Dr.

Date

Form E.C.69

Figure 5

ROUNDING NOTES

The teacher asked her class to draw pictures to show what their fathers did for a living.

She noticed one little girl drawing circles all over the page and asked what kind of work her father did. The little girl said, "My daddy is a doctor and he makes rounds."

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JOURNAL MSMA

Radiologic Seminar CXXV: Pancreatic Scanning

EDWARD L. GIEGER, JR., M.D.
Jackson, Mississippi

THE PANCREAS remains a very difficult diagnostic area radiographically, diagnosis depending primarily on demonstration of alterations in adjacent structures, namely duodenum, stomach, upper small bowel, and colon. The management of pancreatic neoplasm is particularly unrewarding. By the time of diagnosis, disease has become extensive and attempts at curative surgery carry a high morbidity and mortality.

What has been long sought for is some relatively easy method of direct visualization of the pancreas with the idea in mind of obtaining earlier diagnosis. Currently, the only method of accomplishing this is radio-isotope scanning with the use of Selenium 75-selenomethionine, a radiopharmaceutical introduced in 1961. The selection of this agent is based on the fact that methionine is known to actively concentrate in the pancreas with up to 6 per cent of the intravenously injected dose concentrating promptly in the pancreas. The chemical similarity of selenium and sulfur allows the substitution of Selenium for sulfur in the methionine molecule without changing the biological behavior of the methionine. Once this is accomplished, substitution of radioactive Selenium-75 for stable Selenium brings about no further chemical change. The pancreas concentrates the methionine with its radioactive Selenium as part of the molecule and this provides a source of photons within the pancreas for external imaging. Unfortunately, there is nothing

unique about pancreatic acinar cells, being similar to other glandular cells concerned with the production and storage of protein rich material. Therefore, one problem in pancreatic scanning is inherent, that being the lack of a material with specific affinity for the pancreas.

Because of lack of specificity, substantial concentrations of the isotope occur in the liver, spleen, small and large bowel, kidneys and bone marrow. Liver uptake superimposed on the pancreas provides one of the great impediments to a diagnostic scan. The methionine accumulates rapidly in the pancreas and remains for six to eight hours. After the first hour, however, increasing concentrations appear in the liver and small

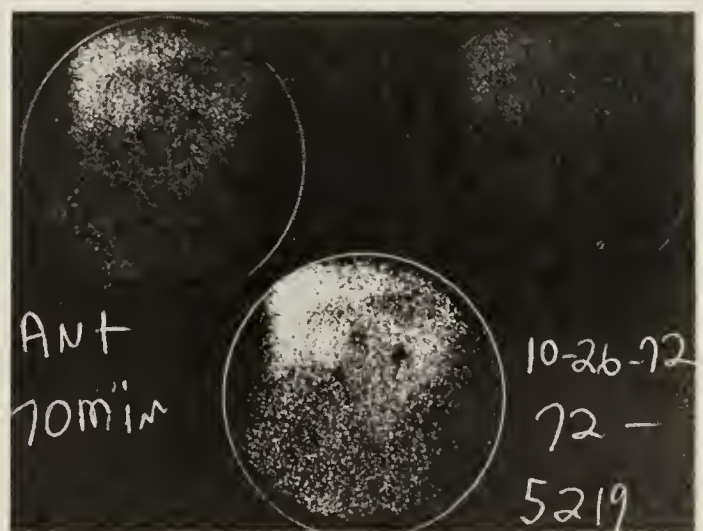


Figure 1. Shows pancreas as a linear band of activity below and to the left of the liver. Interpreted as a normal scan. Exploration revealed no evidence of disease in the pancreas.

Sponsored by the Mississippi Radiological Society.
From the Department of Radiology, St. Dominic-Jackson-Memorial Hospital, Jackson, Miss.

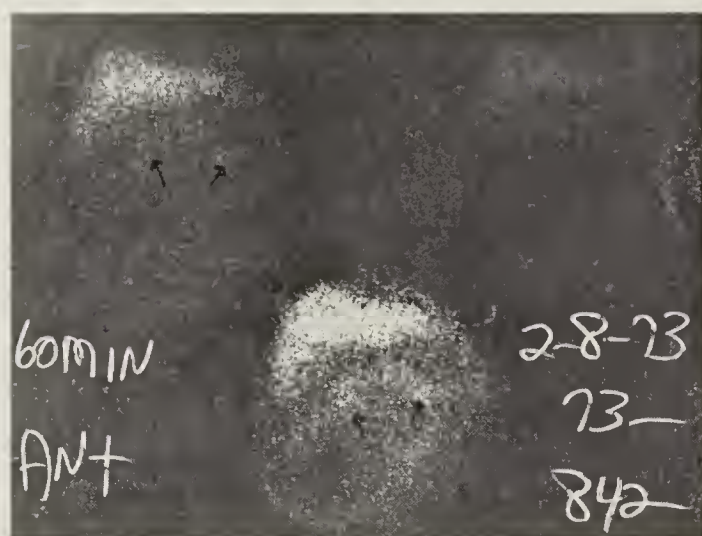


Figure 2. Normal pancreatic scan.

bowel. Optimum scans are usually obtained 30-50 minutes following administration of the isotope.

Since the advent of pancreatic scanning, patient preparation has received a great deal of attention. A number of procedures have been attempted, including special meals (high protein, low fat) to stimulate the pancreas prior to injection of the isotope and Pro-banthine or morphine to inhibit secretion after the administration of the material. The general feeling is that none of these significantly improves pancreatic imaging, however, most nuclear medicine laboratories continue to administer a high protein meal prior to injection of the isotope.

In addition to being a fairly mobile organ, there are several normal variations in pancreatic size and shape. There is normally a thin area at the junction of the body and tail which is ob-

served on the scan as an area of decreased activity. These factors can present problems in diagnosis with a normal scan.

Pancreatic scanning is useful in two clinical situations—diagnosis of pancreatic neoplasm and pancreatitis. Since the isotope localizes in normally functioning pancreatic tissue, any disease process which destroys parenchyma or obstructs the ductal system will result in reduced or absent enzyme production, which is reflected as diminished activity on the scan.

Neoplasms of the neck or body of the gland usually obstruct the major ducts, resulting in a scan with “amputation” of the gland to the left of the lesion. Diffuse neoplastic infiltration may cause poor definition of the gland or result in a scan with no uptake at all. Unfortunately, pancreatitis may produce the same scan image, making differentiation difficult. Debilitated patients

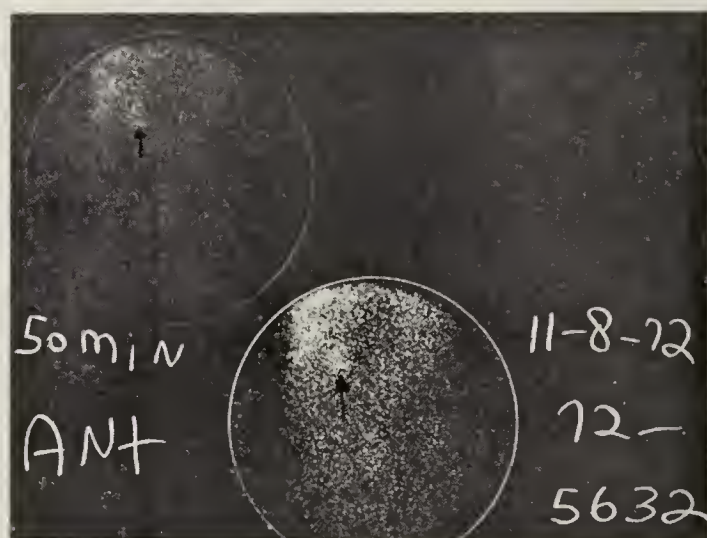


Figure 4. Shows activity only in the head of the pancreas. Proven carcinoma.

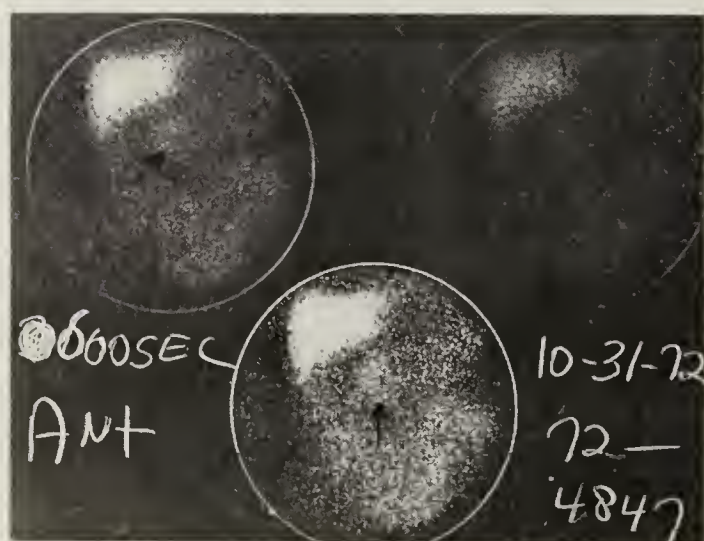


Figure 3. Shows “amputation” of the tail of the pancreas. Proven carcinoma of the body and tail of the pancreas.

may likewise show no pancreatic activity on the scan. It has been reported that scanning is helpful in determining the status of chronic pancreatitis. Inactive pancreatitis produces very little inhibition of uptake activity. However, if the disease is in the active stage, uptake is inhibited. Another problem is that of resolution. Most agree that lesions less than one inch in diameter are difficult to diagnose. Again, this is one of the inherent difficulties of the procedure. The false negative rate is apparently fairly low, ranging from 4 per cent to about 10-12 per cent. Therefore, a scan reported as negative or normal is significantly more reliable than an abnormal appearing scan. The false positive rate appears to vary from 20-40 per cent, the causes of error in most cases being overinterpretation of normal variants or attempts to interpret inadequate scans.

In summary, pancreatitis and particularly pan-

creatic neoplasm are difficult to diagnose by standard clinical techniques and they carry high morbidity and mortality. Early diagnosis of pancreatic neoplasm is especially difficult. These facts have stimulated interest in a method of direct visualization of the pancreas by radio-isotope scanning. The problems inherent in the procedure are: (1) Lack of a pharmaceutical with specific affinity for the pancreas; and (2) Selenium-75 has

a long physical and biological half-life which results in increased radiation exposure to the patient. This must be compensated for by use of smaller doses which in turn leads to a less than optimum scan. As more experience is gained, the procedure may become extremely valuable as a screening procedure in suspected cases of pancreatic disease. ★★★

969 Lakeland Drive (39216)

OLD PRESCRIPTION

A good laugh and a long sleep are the best cures in the doctor's book.

—Irish proverb

JOIN THE GROUP

Neurotic: When a fellow needs a fret.



The President Speaking

"A Look at Medcredit"

CHARLES R. JENKINS, M.D.

Laurel, Mississippi

"IT IS THE BASIC right of every citizen to have available to him adequate health care; it is a basic right of every citizen to have a free choice of physician and institution; the medical profession, using all means at its disposal should endeavor to make good medical care available to each person. . . .

Health care for the poor should not be disassociated from, but rather should be a vital part of the over-all health system."

The above statement of policy adopted by the 1969 House of Delegates of the AMA led to the formulation of the AMA sponsored Medcredit form of national health insurance first introduced in 1971.

When Congress convened in January, 1973, the resurgence of many previously introduced health insurance legislative proposals became of interest to all physicians. We have no assurance that this Congress will be any different from the 1972 one which saw the passage of H.R.1 containing the Bennett Amendment (PSRO's) which piece of legislation was opposed by all branches of organized medicine. However, the numbers of co-sponsors of the Kennedy-Griffiths all inclusive health insurance bill and the numbers sponsoring the AMA backed Medcredit bill are worth noting.

As of January 28, only some 70 Senators and Congressmen have endorsed the Kennedy-Griffiths bill. This bill is backed by labor and the sponsors are working hard to gather support. Senator Kennedy has promised to marshal all his forces for an all-out fight.

In contrast is the rush of support the Medcredit plan is attracting; 127 Senators and Congressmen co-sponsored the bill and numbers supporting it are increasing. With the probability that the bill will pass, let us review some of the important features.

The basic concept recognizes that the population of the United States may be divided into three well-defined categories with respect to health insurance purchasing power.

(1) Those with essentially no capacity to pay—the present Medicaid recipients.

(2) Those with a capacity to pay part of the cost.

(3) Those fully able to pay all of the costs.

For the first group, Medcredit would provide comprehensive coverage without any contribution on their part.

For the second group the contribution would be based on the amount of income tax the individual paid. A taxpayer with a liability of \$500 would receive 70 per cent of the cost of his coverage. As the tax liability increased the government support would decrease until the individual taxpayer with an income tax of over \$1,300 would get the minimum credit of 10 per cent.

The IRS would issue certificates which would be honored against health insurance cost to the taxpayer asking for same. The

(Turn to page 95)

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

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MARCH 1973



EDITORIALS

Nursing Education

In recent years there has been within our own state, as well as the nation generally, a definite change in nursing education that is frequently criticized and often misunderstood by members of the medical profession. A better understanding of nursing education and its effect on nursing service, or the care received by our patients, is quite important to the practicing physician.

There are many factors which have been at play resulting in these changes but for the moment only four will be mentioned. The first of these is *A Position Paper*, prepared by the American Nurses Association in 1965 as regards educational preparation for nurse practitioners, the intent of the report being to provide direction for improving both the system of nursing education and thereby nursing service (patient care). The major point is that education for those who work in nursing should take place in institutions of learning within the general system of education. By so doing, programs through which the student would be able to master the evergrowing complex body of knowledge needed by a competent professional nurse could be developed, which was not always possible in the hospital-based programs.

The second factor was the recognition of the need for increased research in nursing care to meet the changing demands confronted by the nursing profession and concomitant need for continuing education so that a high level of proficiency could be maintained. The third factor, increased flexibility, recognizes the fact that, by having the program within the academic setting, transfer of

credits from one school to another would be simplified and would also allow for advanced or continuing education without having to lose time repeating courses as had been necessary in the past. The final factor leading to these changes was economics, in that the expense of providing a suitable educational program within the conventional hospital setting continued to increase, and the majority of our hospitals could not support an accredited program.

As a result of these changes, of the 33 programs in nursing education in our state at the present time, only two are of the hospital-based (diploma) schools which most of us associate with nursing education. Of the remaining 31 programs, 5 are situated either in one of our universities or colleges and offer a B.S. degree in nursing (four year program); 10, also situated in an institution of higher learning, offer an associate degree in nursing (two year program), and 16 are located in our junior colleges and offer the one year course in practical (vocational) nursing. The graduates from the diploma schools, associate degree programs and baccalaureate degree programs all qualify to write the examination to become a Registered Nurse, and the one year programs the examination for Licensed Practical Nurse.

Perhaps it is of interest to note that in the past year there were 2,722 students enrolled in these programs, 960 graduated, and 912 were licensed by examination by the Mississippi Board of Nursing. At the end of the registration period in 1972,

New Insecticides Are More Harmful

there were 7,065 R.N.'s in our state and 6,028 L.P.N.'s. As compared with national recommendations as to the number of nurses needed for our state, we have just a little more than half the necessary number of R.N.'s for our population and are just a little short of the recommended number of L.P.N.'s.

In this period of transition, many problems have been encountered and are being worked out; others remain but are under study and in the final analysis I feel that we are developing some excellent programs. One of the major concerns has been the scarcity of qualified faculty for the various schools, but there has now been established a master's degree program at the University Medical Center in Jackson which will aid greatly here. Of great concern to most physicians is the limited clinical experience that the nursing student receives in view of the increased academic demands and, in addition, the limited experience that is offered in the specialty areas, such as pediatrics, surgery, and obstetrics and gynecology.

In the past when a student graduated from one of the diploma programs, she was well indoctrinated in the clinical areas of that institution and could graduate today and go to work tomorrow fully competent to carry out her assigned responsibilities. Today when a student graduates, she has an excellent background of academic training but has limited clinical competence, and it is necessary that she go through a period of indoctrination to develop these clinical skills before she can perform at her highest level. Also, she has had limited training in the specialty areas and again will require more training before she can function adequately here. However, in each instance in the final analysis improved nursing service should be achieved.

Recognition of these points by the hospitals has resulted in the development of strong in-service educational programs through which the new graduate receives the proper indoctrination and becomes a valuable member of the health care team. Recognition of these points by physicians and their participation in the continuing education of these graduates will greatly enhance their capability and provide the improved patient care, which is the ultimate goal of both the medical and nursing professions.

TOM H. MITCHELL, M.D.
Vicksburg, Miss.
Chairman
MSMA Committee on Nursing

Mississippi physicians should be mindful of the probability of a sharp increase in insecticide poisonings with the ban on DDT and shift to different types of bug killers.

An editorial in the January 29 issue of the *Journal of the American Medical Association* points out that the types of insecticides that are replacing DDT are sometimes highly dangerous to people.

A federal regulation banning virtually all use of DDT "is a culmination of social and political pressures that have represented DDT as the chief chemical villain in the modern environmentalist movement," the editorial states.

"This it almost certainly is not. The organophosphate insecticides, which will usually now be substituted for DDT, may prove to be the real villains."

It is true that the organophosphates, such as chlorthion, EPN, parathion, phosdrin and TEPP, are less persistent in the environment, the editorial says. But they also are highly toxic to humans, and are easily absorbed through the intact skin, which DDT is not.

"Many deaths have been reported from parathion exposure; few if any from DDT."

The editorial repeats a paragraph from a similar warning in the *Journal* of two years ago, summarizing recommendations to physicians of treatment for cases of organophosphate poisonings.

Physicians are advised in the editorial of availability of AMA publications listing in detail med-



"I like the metric system. I weigh less kilograms than pounds."

ical recommendations for prevention and treatment of the poisonings.

For the general public, the AMA urges extreme caution in handling the new insecticides. It is particularly important to read the warnings and precautions on the package labels, and follow the admonitions carefully, the AMA advised.

The new federal regulations banning DDT in most instances took effect December 31.

W. MONCURE DABNEY, M.D., Editor,
Crystal Springs, Miss.

Legislative Department Performs Vital Service

The American Medical Association's Legislative Department provides a vital service to member physicians all across the country. At the same time, it is regarded by many as one of the most substantial of the intangible benefits which the AMA offers to its membership.

The Legislative Department staffs the AMA Council on Legislation and specializes in all phases of national legislation. After studying, analyzing, and interpreting all Congressional legislation pertaining to medical and health care, the department makes available this information to state, county, and specialty medical societies, members of the public, and other organizations. This usually totals about 2,300 bills of medical interest per Congress. An increased responsibility of this department is the critical review of government regulations which often seriously affect application of law. There are few physicians who could devote the time necessary to accomplish this on their own and, yet, this information is vital because it affects the way medicine is practiced in this country.

To keep key medical leadership aware of legislative developments when Congress is in session, the department writes, publishes, and distributes *Legislative Round-up*, weekly, to approximately 5,000 key state, county, and specialty medical society officers.

Another vital activity is the assistance given to AMA officers in the preparation of testimony and presentations for Congressional hearings. The Legislative Department works with the appropriate AMA scientific personnel to gain the benefit of their expertise before assembling any presentation. The Council on Legislation can then use this resource material to formulate a sound recommendation as to the best policy position for the AMA. Many people do not realize the AMA is often requested to testify because its views are

valued not only by Congress but by the various governmental agencies.

The department also assists in the development, writing, and presentation of draft legislation for consideration by members of Congress, such as the AMA's own national health insurance bill, *Medicredit*. They also assist in the development of presentations to the regulatory agencies.

The staff participates in providing legislative orientation to the AMA's councils and committees as well as to members of the profession who are in Washington, D. C. to visit members of congress.

Finally, the department has undertaken the monitoring of state legislation with a view toward eventually assisting the profession to attain its legislative goals on a state as well as on a national level.

From Medicaid and Medicare regulations to chiropractic issues, national health insurance and appropriations for HEW programs, federal and state medical and health care legislation affects all physicians in some way. The AMA's Legislative Department maintains constant surveillance and provides AMA physician policy makers with accurate and up-to-date information. The leadership of organized medicine can make their judgments and represent AMA's membership with a sound base of resources.

AMA
535 N. Dearborn St.
Chicago, Ill. 60610

PRESIDENT (Continued)

more affluent would simply furnish evidence of the insurance purchase and take the deduction.

Catastrophic coverage would be afforded after the basic coverage runs out. All of the details of the *Medicredit* bill are too lengthy to list or discuss but these are the basics.

Representative Broyhill of Virginia, one of the chief sponsors of *Medicredit*, has said "It is ridiculous for the Federal Government to pay health costs of the wealthy; it is unpardonable to make the poor suffer; and it is unconscionable in a civilized society to subject the middle class to the risk of financial bankruptcy when struck by a catastrophic illness."

It makes sense to me to have an insurance program brought from the third party carriers and paid by an individual whenever possible; when not possible, the Government should assist in part or in full. This is much more palatable to most of us than the totally nationalized health care package backed by the advocates of a socialized state. ★★★

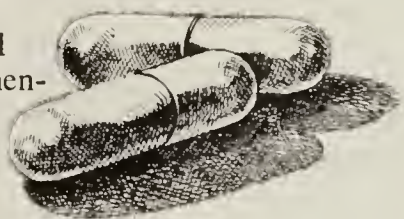
**Because you
practice
medicine in the
Magnolia State...**



You carry one of the heaviest patient loads in the country. Since this may include a number of patients with gastritis and duodenitis... you should know more about Librax®

Helps reduce anxiety-related G.I. symptoms

A patient may blame his attacks of gastritis or duodenitis on "something he ate" but contributing factors may be his job, marital problems, financial worries or some other unmentioned source of stress and excessive anxiety that exacerbated the condition.



Whether it is "something he ate" or "something eating him," adjunctive Librax can help. Librax offers both the antianxiety action of Librium® (chlordiazepoxide HCl), that can help relieve excessive anxiety, and the dependable anticholinergic action of Quarzan® (clidinium Br), that can help reduce gastrointestinal hypermotility and hypersecretion.

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions

Patient-oriented dosage — up to 8 capsules daily in divided doses

For optimal response, dosage can be adjusted to suit patient needs—1 or 2 capsules, 3 or 4 times a day.

To help relieve anxiety-linked symptoms in gastritis and duodenitis

adjunctive Librax®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110



LETTERS

(EDITOR'S NOTE: The Board of Directors of the Mississippi Foundation for Medical Care recently appointed a Committee to Study and Develop Professional Fee Schedules. Members of the committee are Drs. Gerald P. Gable of Hattiesburg, chairman, Jack A. Atkinson of Brookhaven, Kenneth P. Pittman of Jackson, Whitman B. Johnson of Clarksdale, Joseph B. Rogers of Oxford, and Tom H. Mitchell of Vicksburg.)

Based upon interest in the committee's activities, the JOURNAL MSMA is publishing the following letter from the committee chairman to a member of the association who requested information on what the Mississippi Foundation for Medical Care means to the practicing physician.)

J. G. Alexander, M.D.
Laird Clinic
Union, Mississippi 39365

Dear Doctor Alexander:

Thank you for your inquiry about the Mississippi Foundation for Medical Care and your interest in your medical association. As you are acutely aware, the practice of medicine in this country has changed radically in the past decade or so. The doctor-patient relationship whereby you rendered your patient a service for a fee, and held him responsible for the payment of his bill, is almost a thing of the past.

The vast majority of your patients are now covered by some form of medical insurance, namely, Medicare, Medicaid, CHAMPUS, Blue Cross or some other form of private insurance which is responsible for the fees that you charge your patient for your services. Most of these "third parties" who are responsible for paying your fees have established fee profiles for what "they feel" are usual and customary fees for services rendered. Some third parties, namely Medicare, have established different fee profiles for different parts of the state, so that they allow one charge for a service in one part of the state and a higher or lower fee in another part of the state for the same service.

In an effort to correct this inequity and others, the House of Delegates of the Mississippi State Medical Association in 1971 at its annual session authorized the establishment of the Mississippi Foundation for Medical Care to act as an intermediary between the practicing physician and third parties, since it is not permissible for the

State Medical Association to act in this capacity. The MSMA is an organization of dues paying physicians, whereas the MFMC is a voluntary organization open to all physicians, whether they belong to the association or not, and there is no dues requirement for membership. It can therefore act as a PSRO (Professional Standards Review Organization), and represent all physicians in the state as an intermediary with third party payors. The MFMC was incorporated in 1971 with the Board of Directors being the members of the Board of Trustees of the MSMA plus three other M.D.'s representing the northern, central, and southern parts of the state, one member chosen from hospital administrators, one from the Mississippi Economic Council, one from the nursing association, and one from the AFL-CIO representing consumers. One non-voting member from the Blue Cross and one from the Health Insurance Council are also members of the board.

The purposes of the MFMC are: (1) to sponsor the delivery of quality medical care throughout the state by its members, (2) to establish a standardized and uniform fee schedule throughout the state, (3) to establish standards of quality medical care, (4) to act as intermediary in negotiation of all disputes relative to medical care and fees between its members and third parties, and (5) to assure third party payors that our members will deliver quality medical care for a reasonable fee and that we will have peer review to promote and encourage the delivery of quality medical care.

We are making every effort to get as many members of the MSMA as possible to join the MFMC so that the latter organization represents a majority of practicing physicians in the state. As of this date, we have over 70 per cent of the practicing physicians as members and hope that this will be increased to at least 85 per cent.

With the passage of the omnibus health bill by Congress in September of 1972, the secretary of HEW is instructed to set up PSROs in each state to monitor the quality of medical care being delivered to patients. The MFMC can serve as the PSRO for Mississippi with its Board of Directors representing Mississippi physicians. This is the only way in which Mississippi physicians can have a voice in the destiny of medical care in this state in the next decade.

A committee to study and establish a uniform fee schedule, representing all the medical specialties within the state, has been appointed by your Board of Directors. It has requested schedules of fees from all of its members throughout the state. Representatives from all specialty societies will

meet with this committee to establish an equitable fee schedule for different described and coded procedures according to services rendered. Once a uniform fee schedule is established, then your Board of Directors will have a base from which to negotiate with third party payors as outlined in the purposes of the foundation enumerated above. Your foundation needs and must have your support. It represents you and your peers in concerted effort much better than the individual physician can do alone.

I trust this answers your questions and if there is any further information which you desire, please let me hear from you.

GERALD P. GABLE, M.D.
Hattiesburg, Miss.



PERSONALS

GEORGE ADCOCK announces the removal of his office for the practice of diseases and surgery of the ear, nose and throat and maxillofacial surgery from 1404 Irish Hill Drive to the Coastal Medical Center, Gateway Executive Park in Biloxi.

J. E. BOGGESS of Columbus announces the association of DAVID E. ULMER for the practice of ophthalmology at 1124 Main Street.

JOHN W. BOWLIN of Tupelo has been elected president of the Northeast Mississippi Medical Society. Other officers are JACK A. STOKES of Pontotoc, secretary, and DENNIS E. WARD of Corinth, president-elect.

GUY R. BRASWELL of Grenada is serving as president of the North Central Medical Society. ROBERT B. TOWNES, JR., of Grenada is secretary.

RICHARD BUCKLEY announces the removal of his office for the practice of neurosurgery from 1401 Pass Road in Gulfport to the Coastal Medical Center, Gateway Executive Park, Biloxi.

WILLIAM L. CARTER of Meridian is president of the East Mississippi Medical Society. Other officers are REGINALD P. WHITE of Meridian, secretary-treasurer, and CHARLES N. CANNON of Philadelphia, president-elect.

SIDNEY A. CHEVIS of Bay St. Louis is serving as chief of staff of the Hancock County General Hospital.

ROBERT COOK of Sumrall is the new president of the South Mississippi Medical Society. LARRY J.

HAMMETT of Hattiesburg is secretary and JOE JOHNSTON of Mt. Olive is president-elect.

HUGH B. COTTRELL of Jackson, State Health Officer, is serving as associate chairman for the 1973 March of Dimes campaign in Mississippi. This is the fourth consecutive year that Dr. Cottrell has held this post.

H. VANN CRAIG of Natchez has been elected president of the Adams County Medical Society. WALTER T. COLBERT is secretary and KURTZ B. STOWERS is president-elect.

MAX A. CURRY announces the removal of his office for the practice of pediatrics from 1145 West Howard Avenue to the Coastal Medical Center, Gateway Executive Park, Biloxi.

PAUL DERIAN of Jackson attended the Las Vegas conference of the American Academy of Orthopedic Surgery.

ROBERT L. DONALD of Pascagoula is the new president of the Singing River Medical Society. JEFF HODGES is secretary and ROBERT D. MCBROOM, III, president-elect.

C. MIMS EDWARDS and JAMES E. RUFF of Jackson have been appointed to the staff of the Jackson Mental Health Center. Both psychiatrists will work half-time at the center.

MELVIN EHRLICH of Clarksdale is the new president of the Clarksdale and Six Counties Medical Society. GLENN L. WEGENER is secretary and FRANK T. MARASCALCO is president-elect.

JOHN EVANS of Vicksburg was guest speaker before a class about Drugs in Society at the University of Southern Mississippi in Hattiesburg. Dr. Evans discussed the health hazards of smoking.

G. B. FLAGG announces the removal of his eye clinic to 1317 22nd Avenue in Gulfport.

G. HOWARD FREEMAN, JR., announces the opening of his offices for the practice of psychiatry at Suite 612, St. Dominic Medical Offices in Jackson.

LEO E. GIBSON, JR., of Picayune reviewed "Jonathan Livingston Seagull" by Richard Bach for the first 1973 Friends of the Library meeting at the Margaret Reid Crosby Memorial Library in Picayune.

JAMES D. HARDY of Jackson attended the president's dinner of the American Surgical Association in Philadelphia in January.

PERSONALS / Continued

JOHN P. HEY, III, and Mrs. Hey of Greenwood were distinguished guests of the Delta Chapter of the Mississippi Association of Medical Assistants meeting held in Winona.

HUGH JOHNSTON of Vicksburg is outgoing president of the Dr. Joseph Warren Chapter of the Sons of the American Revolution. Dr. Johnston will serve with the officers on the board of governors for the next year.

FRANK L. JONES announces the opening of his practice in ophthalmology at the Coastal Medical Center, Gateway Executive Park, Biloxi.

THOMAS L. KETCHUM of Ripley is new president of the North Mississippi Medical Society. CHERIE FRIEDMAN of Oxford continues to serve as secretary.

ROBERT T. LOTT of West Point has been elected president of the Prairie Medical Society. Other officers are WILLIAM C. WELCH, JR., of Mississippi State, secretary, and J. M. GRIFFITH of Columbus, president-elect.

D. E. MAGEE, JR., has associated with ROBERT SMITH and STARKEY HUDSON for the practice of ophthalmology at the Mississippi Family Health Center, 1134 Winter Street in Jackson.

CHARLES MARASCALCO of Vicksburg is the new president of the West Mississippi Medical Society. M. E. HINMAN is secretary and FRANK MCPHERSON is president-elect.

ELLEN MCDEVITT, formerly of Gulfport, has returned to that city and plans to set up practice. Dr. McDevitt was formerly associate professor of medicine at New York Hospital, Cornell University in New York City.

WESLEY L. MCFARLAND of Bay St. Louis is the new president of the Coast Counties Medical Society. J. H. GADDY of Gulfport is secretary and ROBERT H. MIDDLETON, JR., of Biloxi is president-elect.

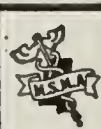
WILLIAM M. MCKELL of Jackson was recently inducted into membership in the American Society for Gastrointestinal Endoscopy.

THOMAS C. TURNER of Jackson has been named new chief of the surgery section at St. Dominic-Jackson Memorial Hospital. Also named section chiefs were ROBERT W. CROWELL, general practice, and ROSS F. BASS, obstetrics and gynecology. They will serve three year terms.

REGINALD P. WHITE and WILLIAM WOOD of Meridian were hosts for the two-day meeting of

the Mississippi Psychiatric Association at the Weems Community Mental Health Center. Dr. White is president-elect of the group; GEORGE LADNER of Jackson is secretary; and WILLIAM MCQUINN of Jackson is president.

CHARLES O. WILLIAMS of Jackson is the new president of Central Medical Society. MAX PHARR is secretary and JOEL ALVIS is president-elect.



DEATHS



MEEK, EDWIN MCLEOD, Greenwood. M.D., Tulane University School of Medicine, New Orleans, La., 1934; interned Baltimore City Hospital, 1934-36; member of Delta Medical Society; died Jan. 25, 1973, age 63.



PHARR, STANLEY L., Booneville. M.D., Memphis Hospital Medical College, Memphis, Tenn., 1911; interned Tulane, New Orleans, La., three months in 1936; emeritus member of MSMA and AMA; member of Fifty Year Club, MSMA; awarded Golden "T" by University of Tennessee in 1961; member of Northeast Mississippi Medical Society; died Jan. 10, 1973, age 90.



NEW MEMBERS

BUCKLEY, RICHARD E., Biloxi. Born Starkville, Miss., June 9, 1956; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1961; interned Medical College of South Carolina, Charleston, South Carolina, one year; neurosurgery residency, same, 1962-63; neurosurgery residency, Wilford Hall USAF Medical Center, San Antonio, Tex., 1965-69; elected by Coast Counties Medical Society.

CHEVIS, SIDNEY ALBERT, Bay St. Louis. Born Bay St. Louis, Miss., March 9, 1945; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1970; interned St. Elizabeth Hospital, Dayton, Ohio, one year; elected by Coast Counties Medical Society.

DAVIS, CLIFTON B., Gulfport. Born Terry, Miss., May 3, 1930; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1959; interned Chatham Co. Memorial Hospital, Savannah, Ga., one year; psychiatry residency, University Medical Center, Jackson, Miss., 1964-67; elected by Coast Counties Medical Society.

GIEGER, EDWARD L., JR., Jackson. Born Laurel, Miss., Oct. 24, 1940; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1965; interned same, one year; radiology residency, same, 1968-71; elected by Central Medical Society.

HARGIS, ROBERT, Jackson. Born New Orleans, La., Jan. 18, 1939; M.D., Louisiana State University School of Medicine, New Orleans, La., 1964; interned Keesler Medical Center, Biloxi, Miss., one year; surgery residency, Andrews Hospital USAF, Washington, D. C., 1965-66; urology residency, Walter Reed General Hospital, Washington, D. C., 1966-69; elected by Central Medical Society.

HEIDISCH, RITA C., Gulfport. Born Detroit, Mich., May 21, 1935; M.D., Wayne State University School of Medicine, Detroit, Mich., 1964; interned Highland Park General Hospital, Highland Park, Mich., one year; pediatrics residency, Henry Ford Hospital, Detroit, Mich., 1965-68; elected by Coast Counties Medical Society.

HODGES, JEFF ALLEN, Pascagoula. Born Ripley, Miss., June 30, 1932; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1958; interned Lackland AFB Hospital, San Antonio, Tex., one year; elected by Singing River Medical Society.

HOWLAND, ROBERT LOUIS, JR., Columbus. Born Scottsboro, Ala., May 5, 1938; M.D., Medical College of Alabama, Birmingham, Ala., 1964; interned University Hospital, Birmingham, Ala., one year; urology residency, Lloyd Noland Hospital, Fairfield, Ala., 1967-68; urology residency, Carraway Methodist Medical Center, Birmingham, Ala., 1968-71; elected by Prairie Medical Society.

JONES, FRANK LORRAN, Biloxi. Born Columbia, La., Feb. 5, 1934; M.D., Louisiana State University School of Medicine, New Orleans, La., 1961; interned Green Memorial Hospital, San Antonio, Tex., one year; ophthalmology residency, Wilford USAF Hospital, San Antonio, Tex., 1966-69; elected by Coast Counties Medical Society.

LOBRANO, WILLIAM B. C., Pass Christian. Born Philadelphia, Pa., June 27, 1941; M.D., Louisiana State University School of Medicine, New Orleans, La., 1970; interned Charity Hospital, New Orleans, La., one year; elected by Coast Counties Medical Society.

LOPEZ, RICARDO E., Gulfport. Born Republic of Panama, May 21, 1937; M.D., Tulane University School of Medicine, New Orleans, La., 1962; interned Detroit Memorial Hospital, Detroit, Mich., one year; pathology residency, Children's Hospital, San Francisco, Calif., 1963-65; pathology residency, Merritt Hospital, Oakland, Calif., 1965-66; pathology residency, Henry Ford Hospital, Detroit, Mich., 1966-67; elected by Coast Counties Medical Society.

MASSIE, JAMES DAN, Jackson. Born Humboldt, Tenn., Nov. 9, 1939; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1964; interned John Scaly, Galveston Tex., one year; radiology residency, University of Mississippi Medical Center, Jackson, Miss., 1965-68; elected by Central Medical Society.

RUTHERFORD, JOHN DAVID, III, Bay St. Louis. Born Bay St. Louis, Miss., Oct. 27, 1944; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1969; interned St. Elizabeth Medical Center, Dayton, Ohio, 1969-70; elected by Coast Counties Medical Society.

VARELA, PAUL Y., Meridian. Born Iloilo City, Philippines; M.D., University Santo Tomas, Manila, Philippines, 1964; interned St. Michael Hospital, Milwaukee, Wisc., one year; internal medicine residency, Cook County Hospital, Chicago, Ill., 1966-67; internal medicine residency, Harper Hospital, Detroit, Mich., 1967-70; internal medicine residency, VA Hospital, Tulane University, New Orleans, La., 1970-72; elected by East Mississippi Medical Society.

CHAMPUS Hires R.N. as Coordinator

Mr. H. Cody Harrell, Assistant Executive Secretary of the Mississippi State Medical Association, announces the addition of a fulltime registered nurse, Mrs. Shirley Keller, to the staff of the CHAMPUS program as Coordinator.

Mrs. Keller, a native Mississippian, is a graduate of Meridian Junior College and the Rush Memorial Hospital School of Nursing. Her nursing experience includes general duty, head nurse, and industrial nursing. For the past three years she has served as Special Services Consultant and Assistant Manager of the Medicaid program for the state of Mississippi.

The state medical association has administered the CHAMPUS program, commonly referred to as military Medicare, for approximately 14 years at its headquarters office in Jackson.



POSTGRADUATE CALENDAR

MISSISSIPPI POSTGRADUATE INSTITUTE IN THE MEDICAL SCIENCES

March 5-9, 1973

OBSTETRICS INTENSIVE COURSE

University Medical Center, Jackson
March 5-9, 1973, beginning at 8 a.m.

Sponsored by The University of Mississippi School of Medicine, with the support of the Mississippi Regional Medical Program

Coordinator:

Donald M. Sherline, M.D., associate professor of obstetrics and gynecology, The University of Mississippi School of Medicine

Dual emphasis of this one-week intensive course will be on current concepts of obstetrical and gynecological practice. In obstetrics, participants will study fetal medicine, prenatal and intrapartum medical complications of pregnancy and obstetrical anesthesia and analgesia. At physician request, the course has been expanded to include newer techniques of office gynecology. Participants will round, attend medical complications clinic, seminars and conferences.

Offered through the Mississippi Postgraduate Institute in the Medical Sciences, the intensive course series is supported by the Mississippi Regional Medical Program. Registration for each course is limited to physicians enrolled in the four-year institute program.

FUTURE CALENDAR

March 5-9, 1973

OBSTETRICS AND GYNECOLOGY INTENSIVE COURSE

March 19-23

STROKE AND NEUROLOGICAL DISEASE IN- TENSIVE COURSE

March 26-30

CARDIOLOGY INTENSIVE COURSE

March 28

RENAL SEMINAR: HEMATURIA, DIFFEREN- TIAL DIAGNOSIS AND TREATMENT

April 2-6

PEDIATRICS INTENSIVE COURSE

April 19

DIABETIC RETINOPATHIES

April 23-27

RADIOLOGY INTENSIVE COURSE

April 30-May 3

MISSISSIPPI STATE MEDICAL ASSOCIATION, BILOXI

Mental Health Clinic Now in Vicksburg

A mental health clinic for Vicksburg and Warren county is now in operation at the Community Services Center in Vicksburg.

Dr. Robert Scott, assistant professor of psychiatry at the University Medical Center in Jackson, is at the clinic twice weekly, and Dr. Douglas Draper, consultant with the mental health services division of the State Board of Health, also makes periodic visits to offer services.

Initial plans envision the clinic as a provider of outpatient referral services, primarily for children. Also slated to begin is an educational program for doctors, clergymen, teachers, counselors, other professionals, and lay volunteer workers—helping all of these to identify mental health problems. Administrative functions will be carried out by the Community Services Center, a non-profit corporation founded over a year ago under the initial sponsorship of the Warren County Mental Health Association.

"As soon as practical," said Herman Hossfeld, president of the association, "the clinic's program will be expanded to offer help in such areas as alcohol and drug abuse."

Family Planning Course Set for New Orleans

A tuition-free seminar in family planning for family practice physicians and any interested specialists sponsored by The American College of Obstetricians and Gynecologists and Louisiana State University will be held in New Orleans, Mar. 10-11.

The special two-day seminar will focus on various aspects of family planning: the chemical and mechanical means of contraception; reproductive anatomy, physiology and biochemistry; the role of allied health personnel in family planning; and demography, human sexuality and the socio-psychological aspects of family planning.

The course is sponsored by Louisiana State University and The American College of Obstetricians and Gynecologists.

For further information physicians may write: Richard Dickey, M.D., Ph.D., Louisiana State University, Dept. of Ob/Gyn, School of Medicine, 1542 Tulane Ave., New Orleans, La. 70112. The telephone number is (504) 527-8141.

To help defray expenses, a per diem will be paid to physicians accepted for the courses.



Book Reviews

Handbook of Medical Treatment. Thirteenth Edition. Edited by Milton J. Chatton, M.D. 648 pages with a table of Normal Values and Abbreviations. Los Altos, Calif.: Lange Medical Publications, 1972. \$6.50.

This book is composed of 23 chapters dealing with treatment of various medical diseases. The first chapter deals with general symptoms and signs such as fever, shock, pain, and allergic disorders. Each is briefly presented as to definition, etiology, and classification. This is followed by a more detailed discussion of treatment.

The next chapter concerns fluid and electrolyte disorders. Basic considerations are presented first, followed by a discussion of the physiology of water and electrolyte disorders and the treatment of their abnormal states. Pharmacologic activities of fluids and electrolytes are then presented and clinical states of altered acid-base balance are outlined. Disorders of potassium, calcium, and magnesium are briefly discussed, and finally, an approach to diagnosis and treatment of water, electrolyte, and acid base disturbances is outlined.

The next 10 chapters deal with specific therapy of various organ systems including skin, lungs, heart, blood vessels, blood, liver, gastrointestinal tract, joints, connective tissue, urinary tract, brain and endocrine glands. Various disease states in each system are discussed, beginning with a short orientation followed by a more detailed outline of treatment.

There is a chapter that deals with hormones and hormone-like agents and one that is concerned with nutritional and metabolic disorders. Four chapters discuss infectious diseases, the first being viral, chlamydial, and rickettsial; the second, bacterial and fungal; the third is spirochetal; and the fourth, parasitic. One chapter deals with chemotherapeutic and antibiotic agents. This chapter discusses the major groups of antibiotics and supplies information concerning indications, antimicrobial activity, doses, routes of administration, and adverse effects.

Two chapters include disorders due to physical agents and toxins and two discuss psychiatric disorders and cancer chemotherapy.

The appendix gives an outline of heart-lung resuscitation and includes tables of desired weights and appropriate equivalents.

This handbook supplies fairly comprehensive information concerning treatment of most disease states, and should be helpful to medical students, interns, residents, and practitioners. The print is good, the binding adequate, and the price is fair.

JACK Q. CAUSEY, M.D., Centreville, Miss.

A Synopsis of Contemporary Psychiatry. Fifth Edition. By George A. Ulett, M.D., Ph.D. 367 pages with illustrations. St. Louis: The C. V. Mosby Company, 1972. \$10.90.

The book covers, briefly, of course, history of psychiatry, psychiatric and neurological examination, psychological examination, EEG, psychiatric symptoms, psychodynamics, psychiatric syndromes by diagnostic categories, treatment, management of suicidal patients, military, forensic, and community psychiatry. Obviously any attempt to cover this amount of material in a book that is practically pocket size is going to meet predictable difficulties, particularly in a field as inclusive and theoretical as psychiatry.

The sections, for example, on EEG and psychological testing present so much rather technical material as to be discouraging to the totally uninitiated and I would tend to either expand these a little with more illustrations or abbreviate them further with appropriate references. On the other hand, the brief comments on diagnostic categories such as transient situational reactions come off with little meaningful material at all.

The section on chemotherapy is particularly good with the exception that Dr. Ulett fails to point out the addictive potential of many of the sedative type anti-anxiety or tranquilizing drugs. He does mention this problem briefly in one section of the book, but falls into the same error when discussing their use with neuroses, mentioning only that they should be used "judiciously."

The section on mental retardation could be read more meaningfully if the classification of mental retardation were presented first in the chapter and it needs updating a little.

The proofreader missed several opportunities to distinguish himself in this edition, a minor point, but for some reason in a book this brief incomplete sentences are unusually disconcerting.

The book is not quite as up to date perhaps as some textbooks; however, in psychiatry, except in areas such as genetics and somatic thera-

LITERATURE / Continued

py, revising every three to four years may save reviewing much material that is already obsolete or out of vogue.

These are all, however, minor limitations and I am sure that this book will continue to be of value in providing an overview and ready reference to medical students, paraprofessionals, non-psychiatric practitioners and others. (It might be even more useful if it were presented in pocket size paper back form rather than hard back.)

BARBARA GOFF, M.D., Whitfield, Miss.

SAMA-MECO Project Plans Get Underway

The MECO (Medical Education-Community Orientation) project in Mississippi will be operating its third externship program this summer. At this time, it is predicted that 40 pre-sophomore and pre-junior students will be participating in community hospitals and family practice clinics across the state.

The MECO project in Mississippi is sponsored jointly by the Student American Medical Association (SAMA) chapter at UMC, the Mississippi Hospital Association and the Mississippi State Medical Association. For 1973, the state project director is David Irwin of Saltillo and the school director is Robert Flowers of Brookhaven. Tom Greer of Anguilla, last year's state project director, is now serving on the national MECO Planning Committee.

According to these student leaders, "The SAMA Project for Medical Education and Community Orientation is a nationally coordinated network of extramural educational programs organized on a statewide basis and based in a community hospital or group practice clinic. MECO exposes the preclinical student to the health care activity of the community and involves him in clinical and non-clinical areas of the hospital and clinic. The long range objectives of the project are to affect the future distribution of health manpower in the United States and to develop a mechanism to facilitate continuing education of the practicing physician."

Although many aspects of MECO are not new, having been developed by many preceptorship and externship programs in the past, the SAMA-MECO project represents the first formalization on a national level of the concept of extramural education as an important and integral part of the undergraduate medical education.

For more information, please contact: David H. Irwin, Jr., 311 Lorenz Blvd., Jackson 39216. The telephone number is (601) 366-0088.

Region 5 Has Groundbreaking

Two groundbreaking events were held in the Delta Mental Health and Retardation Program for the Fifth Region of Mississippi recently.

In Cleveland, ground was broken for a center building at a site adjacent to the Bolivar County Hospital. Ground was also broken for another Delta MH-MR Center building on a site east of the General Hospital in Greenville.

The two facilities will serve Washington, Bolivar, Sharkey and Issaquena counties which make up MH/MR Region 5. The center, under the direction of Dr. Gilbert S. Macvaugh, Jr., serves 147,000 people in those four counties and has been operating from temporary facilities since official operation began on July 1, 1972.

Washington County Judge Joe Wroten, who was the first president of the Washington County Mental Health Association, was the speaker for both ceremonies. He called the program a grass-roots achievement which would put full-time, full-service mental health facilities within 30 minutes of residents of all four counties of the region.

State Physical Therapy Program Organized

Organization of the state's first physical therapy training program is well underway with the appointment of program head Dr. Raymond E. Hogue, according to Dr. Thomas E. Freeland, dean of the University of Mississippi School of Health Related Professions.

Dr. Hogue, named by the Board of Trustees, Institutions of Higher Learning, in October, is professor of physical therapy and chairman of the department.

Beginning next September with a class of 15, the two-year program follows two years of collegiate academic work and leads to certification and a bachelor's degree.

The new chairman holds the B.S. and M.A. degrees from the University of Kansas and the Ph.D. from the University of Missouri. He was chief physical therapist at Children's Convalescent Hospital in Oklahoma and, for 12 years prior to the Medical Center appointment, was director of physical therapy at the University of Missouri Medical Center at Columbia.



105th Annual Session of MSMA at Biloxi Will Offer Something for Everyone

Dr. Denton Cooley of Houston, Tex. will headline an outstanding lineup of scientific session guest speakers for the 105th Annual Session of the Mississippi State Medical Association, April 30-May 3, 1973, at Biloxi.



Dr. Martin

Dr. Raymond S. Martin, Jr., of Jackson, chairman of the Council on Scientific Assembly, made the announcement. The convention will again be held at the luxury hotel, the Sheraton-Biloxi.

The annual session opens with the House of Delegates on April 30, and the Scientific Assembly opens on Tuesday, May 1. The seven scientific sections will offer presentations in surgery, medicine, preventive medicine, general practice, ob-gyn, pediatrics and EENT.

Thirteen specialty groups will have concurrent meetings, and medical alumni from Ole Miss, Tennessee, Tulane and Vanderbilt are scheduling social occasions. The Louisiana-Mississippi O & O Society will hold its annual meeting May 4 and 5 at the Sheraton-Biloxi. An association-wide fellowship party is on the Wednesday evening agenda.

Some 20 scientific exhibits will be offered to convention-goers as well as over 30 technical exhibits by ethical pharmaceutical manufacturers, medical supply houses, etc.

A special offering this year will be color films of surgical procedures performed at the Veterans Administration Center in Jackson. The Mississippi Society for the Prevention of Blindness will again offer its Short Course in Practical Tonometry for non-ophthalmologists as well as performing glaucoma screening for members and guests.

The Woman's Auxiliary is finalizing plans for its concurrent annual session, and special events include the Fifty Year Club, golf tournament and other group meetings.

Early reservations at the Sheraton-Biloxi are recommended, and convention officials are predicting a sellout by April. Reservations may be made through the MSMA office or by writing directly to the Sheraton at 3436 West Beach Blvd., Biloxi 39533. Additional luxury accommodations are available at the adjacent Holiday Inn and Ramada Inn.

U.A.B. Now Has Medical Claims System

A computer system which simplifies the filing of professional medical claims is now in operation at the University of Alabama Medical Center in Birmingham. This system enables a more rapid payment of fees at no charge to the physician. Fifty physicians are now participating in the On-Line Medicaid Claims Processing System Project made possible by a contract with the Health Care Technology Division of the National Center for Health Services Research and Development.

Because of the volume of Blue Cross-Blue Shield, Medicaid, Medicare and commercial insurance claims which must be prepared daily, many physicians employ fulltime claims staffs. Because insurance claims become non-negotiable if not filed by deadline, and the reprocessing of incorrect or incomplete claims causes considerable delay in payments, the need for rapid and accurate processing is obvious.

Now the On-Line Claims Project provides the installation of a standard, low-cost auxiliary Bell telephone device with Touch-Tone and Card Dialer capabilities. This device connects the physician's office to the computer center in Birmingham. All of the information required on the Med-

ORGANIZATION / Continued

icaid form (W-1490) is transmitted by push buttons on the Touch-Tone telephone or by inserting pre-punched telephone dialer cards, which eliminate errors in transmitting information. The computer transposes all appropriate data onto claim forms, which are sent directly to the insurance carrier.

This system also returns a completed copy of each form to the physician's office. Each participating doctor receives individualized sets of pre-punched cards for his most commonly used procedures and diagnoses. By insertion of these cards into the card dialer, the identification of the physician, the procedures and diagnoses are communicated. By using the push buttons, the patient's identification, the place of service, the date and the charges are communicated.

Where physicians had often risked nonpayment for services rendered to patients no longer covered by insurance, the computer center now offers the capability of checking a patient's current Medicaid status.

Allergists Plan Annual Meeting

The American Association for Clinical Immunology and Allergy will hold its annual meeting Nov. 29-Dec. 2 at the Hilton Palacio Del Rio Hotel in San Antonio, Tex.

For further information, contact the program chairman, Dr. Robert J. Brennan, president-elect, 3471 N. Federal Hwy., Fort Lauderdale, Fla. 33306.

Dr. Ellis Moffit of Jackson, Miss., is currently serving as president of the Southeast Section of the Omaha-based organization.

MSMA Included in New State History

An entire chapter in Volume II of the new *A History of Mississippi* is devoted to medical services and the Mississippi State Medical Association's development and role in bringing health services to the state's people is prominently included.

MSMA staff represented the association at the autograph party for contributors held at the Old Capitol Museum in Jackson on Jan. 19.

The new two volume history was published by the University and College Press of Mississippi and sells for \$25.00 a set. Copies may be ordered



Contributors shown are (clockwise) R. A. McLenore, editor and contributor; Sarah A. Rouse, Jack W. Gunn, Joseph C. Kiger, Willie D. Halsell, and Laura D. S. Harrell, associate editor who also contributed the chapter on "Medical Services in Mississippi, 1890-1970."

from the University and College Press, Hattiesburg, Miss. 39401.

National SAMA President Speaks at UMC

George M. Blatti, national president of the Student American Medical Association, will be in Jackson, March 23, 1973, to address the noon Medical Center Assembly in the School of Nursing Auditorium.

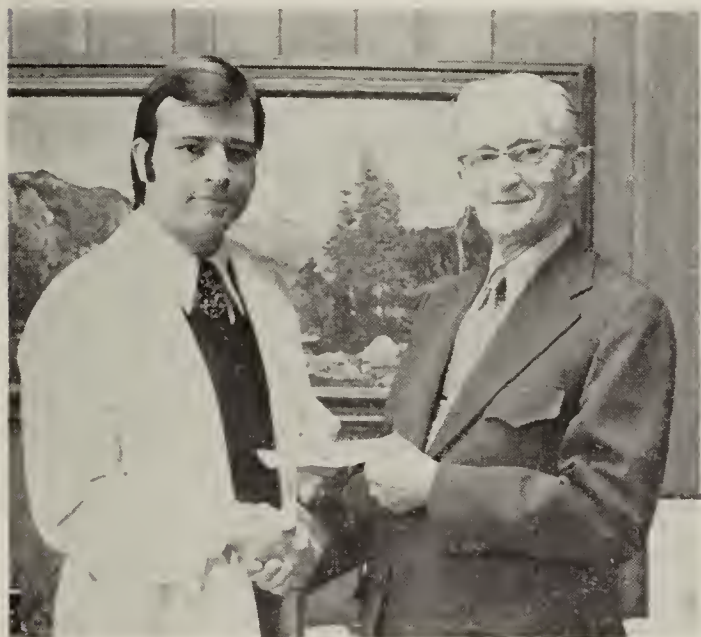
Mr. Blatti attended two years of medical school at the University of South Dakota, and transferred to the University of Minnesota for the completion of his training. He is presently a senior medical student.

Mr. Blatti served as the regional coordinator for the MECO program in the Midwest in 1970-71, and was on the national MECO Committee. In 1971-72 he served as Speaker of the House of Delegates of SAMA, while being actively involved

in national health legislation. He was elected national president of SAMA in May 1972.

On Friday evening he will participate in a panel discussion on the major national health issues, and how students can become more involved. All physicians are invited to both sessions. The night meeting is in The Medical Center Holiday Inn at 7:30 p.m.

Hindman Named UMC Scholarship Recipient



University of Mississippi School of Medicine senior Steve Hindman of Newton, left, is this year's recipient of the Phillip Morris-Lindsey Risher Scholarship. Dr. Lindsey Risher, left, former Laurel physician who now heads Comprehensive Health Planning in Jackson, established the \$1,000 annual award last year in conjunction with Phillip Morris, Inc.

Drug and Alcohol Treatment Offered

A new service of Mental Health and Retardation Region 2 is an alcohol and drug abuse treatment program for Panola, DeSoto, Marshall, Tate, Lafayette, Yalobusha and Calhoun counties. "Alcohol and drug abuse are among the most frequently encountered mental health problems," according to director George Muse, who said no one is denied treatment for alcohol and drug abuse under the new region-wide program.

The program provides direct services to addicted patients and provides counseling for families and refers patients to half-way houses and to other service institutions. The program also

provides psychiatric and psychological evaluation, withdrawal services, therapy, occupational guidance and educational programs for schools, industry and other interested groups.

During its first two months, the program served patients ranging in age from 12 to 70, and it is currently serving families in each of the region's seven counties.

The program is operated out of the regional center at Oxford, directed by Dr. Joseph Tramontana, who said that, in the future, drug and alcohol counseling and rehabilitation services will be provided in each of the seven counties, thus eliminating the need for patients to come to Oxford as frequently as before.

Dr. Nelson Is New Medical Center Dean

Dr. Norman C. Nelson will become vice chancellor for health affairs and dean of the medical school at the University of Mississippi Medical Center in Jackson July 15.

Dean at LSU School of Medicine in New Orleans since 1971, the 43-year-old surgeon has been on the faculty there for 10 years, rising from instructor to professor of surgery, becoming associate dean in 1969, and dean two years later.

University Chancellor Porter L. Fortune, Jr., announced Dr. Nelson's appointment Thursday following approval of the Board of Trustees, Institutions of Higher Learning, in their regular February meeting.

"Dr. Nelson's experience as practicing surgeon, superior teacher, and successful administrator give him the solid background the Medical Center's chief administrative officer must have," Chancellor Fortune said. "He has the proven ability and leadership quality vital to the academic health sciences, particularly in 1973 when changes in federal priorities have put all university health centers under severe financial stress."

The new appointee succeeds Dr. Robert E. Blount, Medical Center director and medical school dean, who reaches retirement age in July.

The change in title from director to vice chancellor reflects the increased and broadened responsibilities accompanying Medical Center growth, Chancellor Fortune explained. The size and complexity of the Medical Center, with its established Schools of Medicine, Nursing, and Health Related Professions, and developing dental school, University Hospital, graduate study, research, and community service programs call for a different administrative structure than was needed previously, he said.

ORGANIZATION / Continued

Dr. Nelson got his medical and undergraduate degrees at Tulane University and did his internship and residency at Charity Hospital of Louisiana prior to a year as a clinical and research fellow in surgery at Harvard.

Dr. Nelson's special recognitions include election to Omicron Delta Kappa, leadership fraternity, Phi Kappa Phi, Sigma Xi, and Alpha Omega Alpha, honor societies.

His academic career is marked by five years as a Markle Scholar, a Southern Surgical Association Shipley Award, five consecutive years' recognition as best clinical lecturer at LSU, designation as most inspirational teacher in 1966 and 1968, and Class of 1970 selection as outstanding teacher.

He holds membership in 20 professional societies including the Association of American Medical Colleges, American Association for the Advancement of Science, American Medical Association, Society of University Surgeons, and the Association for Academic Surgeons. He is a fellow of the American College of Surgeons and the Southeastern Surgical Congress and is current president of the Surgical Association of Louisiana.

Among Dr. Nelson's numerous activities are past-chairmanship of the American College of Surgeons Region 7 Commission on Cancer, consultant in surgery to the USPHS Hospital in New Orleans, service on the board of the Louisiana Division, American Cancer Society, the medical professions advisory subcommittee of the Health Education Authority of Louisiana, the Regional Advisory Group of the Louisiana Regional Medical Program and chairmanship of the committee on health manpower of the New Orleans Area Health Planning Council.

Dr. Nelson was born in Hibbing, Minn., in 1929. In his early childhood, his family moved to Vicksburg where his father owned and managed the National Park Hotel, later to Biloxi and Houston, Texas. His wife is the former Annie Lee Pitre of Ville Platte, La. They have three children.

AMA Sponsors Socioeconomics Congress

The AMA will present the 7th National Congress on the Socioeconomics of Health Care April 13-14 at the Marriott Motor Hotel in Chicago.

Sponsored by the AMA Council on Medical Service, the congress is designed to assist interested physicians to increase personal productivity by adoption of more efficient business and office

practice procedures and to identify sources of information and services in the area of practice management.

Registration is \$25.00 for AMA members and \$35.00 for nonmembers. For further information, write Division of Medical Practice, AMA, 535 N. Dearborn St., Chicago, Ill. 60610.

Physicians Attend Heart Fund Kick-off



Among those attending the Mississippi Heart Fund kickoff held recently in Jackson were these Mississippi Heart Association officers and committee chairmen. Seated left to right, Dr. William L. Wood, Jr. of Tupelo, vice-president; Dr. Frederick E. Tatum of Hattiesburg, president; Dr. E. E. Thrash of Jackson, personnel committee chairman; Dr. Joe M. Ross, Jr. of Vicksburg, membership chairman. Back row left to right, Charles W. Holt of Hattiesburg, secretary; Brad Dye of Grenada, state heart fund chairman; Ray R. McCullen of Jackson, treasurer; and Dr. Lewis Nobles of Clinton, research advisory and policy committee chairman.

Miss. Arts Festival Announces Plans

Mississippi's cultural extravaganza will again be in full swing May 1-6 when the Tenth Annual Mississippi Arts Festival officially opens. Again festival officials have planned a full week of events. This year's festival will stress involvement with more than 150,000 people expected to participate in the May event.

An international tone will be brought to the festival this year in its presentation of four nights of entertainment by widely acclaimed performers. In the Jackson Municipal Auditorium the Jackson Ballet Guild will offer an evening of ballet May 1, and the Mississippi Opera Association

will offer a night of opera May 3. In the Mississippi Coliseum the Arts Festival itself will present two nights of stellar entertainment, May 4 and 5.

An exciting addition to the festival will be an International Exhibit where members of the state's international community in national costume will present the arts, crafts, and culture of Germany, Greece, Kenya, and Japan. Highlights will include a recital by a German concert pianist, a display of contemporary African graphics, and Greek dancing.

Another important new event will be a Eudora Welty Celebration. On May 2, which will be declared Eudora Welty Day for the state, Miss Welty will present a reading from her works in the historic House of Representatives chamber in the Old Capitol Museum. A reception for the author will follow in the new Archives and History Building. The public is invited. In conjunction with the celebration, New Stage Theatre will present performances of its highly acclaimed adaptation of Miss Welty's book, *The Ponder Heart*.

Artisans in Action, the hit of last year's festival, will return with more than 125 artisans creating objects of beauty and usefulness. The exciting array of entertainment for the '73 Festival will also include band and symphony concerts, a noted troupe of actors in performance, an unusual circus of the performing arts, an arts and crafts show, and a special exhibit in the Old Capitol Museum.

Topnotch musicians, vocalists, actors, and artists from throughout the state will exhibit their skills in attractions along the midway, with concerts and coffeehouse entertainment featured nightly. Artists of every age and talent will be included in seven major exhibitions. Seminars on opera and acting, and children's literature are scheduled. A Film Celebration will screen winners of the festival's second annual film competition as well as film classics; and for the first time, winning entries in the festival's literary competition will be published and children's pavilion which allows youngsters to participate in the arts will be supplemented by plays, concerts, and story-telling hours.

Ticket sales will begin March 12 with stars to be announced March 18. Ballet tickets are priced at \$5, \$4, and \$3. Opera tickets are \$5, \$4, and \$3. Mississippi Arts Festival tickets, good for both the May 4 and May 5 performances, are \$15, \$10, and \$5. Order forms, which may be completed and mailed to the ticket office, will be published in newspapers throughout the state beginning Sunday, March 11.

The purchase of a ticket to any of these four

performances will entitle the purchaser to enter the fairgrounds and all festival exhibits, except the Coffeehouse, free throughout festival week. Persons without performance tickets will be required to pay a 25¢ admission charge to enter the fairgrounds, and \$1 for the Performing Arts Program. Coffeehouse admission will be 50¢.

The festival is sponsored by Mississippi Arts Festival, Inc., which was established in 1969. Prior to that time, the festival was produced under the auspices of the Jackson Civic Arts Council and the Junior League of Jackson. Since its inception in 1964, the festival has grown in attendance from 3,500 to 150,000. Producing the festival is like operating a great industry with more than 2,000 volunteers who plan, promote, and stage this extraordinary extravaganza of the arts. Serving as chairman of the 1973 production committee is Mrs. Tim Jones. Assisting are Mrs. David R. Bickerstaff, co-chairman; Mrs. Charles C. Taylor, Jr., secretary; Mrs. Albert H. Green, treasurer; and Mrs. John B. Clark, promotion.

AMA's Medcredit Is Explained Further

Mississippi Senator James O. Eastland and Congressmen Bowen, Cochran, Lott and Montgomery were among 127 other senators and congressmen introducing an improved and expanded version of the American Medical Association backed Medcredit bill for national health insurance as the 93rd Congress began.

Based on the principle of using tax credits to spur the purchase of comprehensive health insurance for all Americans, the Medcredit proposal has four chief bipartisan sponsors from the Senate and House committees responsible for health legislation—Sens. Vance Hartke (D-Ind.) and Clifford Hansen (R-Wyo.), both of the Senate Finance Committee, and Reps. Richard Fulton (D-Tenn.) and Joel Broyhill (R-Va.), both of the House Ways and Means Committee.

Dr. Russell B. Roth, AMA's president-elect, joined the chief sponsors of the proposed legislation after its introduction into the Congress at a Capitol Hill press conference and detailed the new provisions of Medcredit 1973 which include dental care for children, emergency dental care for all ages, and improved home health services.

Dr. Roth said that the new Medcredit proposal should cost about \$12.1 billion, approximately the same as last year's bill. He pointed out in explanation, however, that while new benefits have been added to the 1973 version, certain modifications

ORGANIZATION / Continued

had been made to the new bill's deductible and coinsurance features.

The Medicredit bill is a three-pronged approach to providing health insurance protection, according to Dr. Roth. The proposal would:

- pay the full cost of health insurance for those too poor to buy their own,

- help those who can afford to pay a part of their health insurance cost. The less they can afford to pay, the more the government would pay,

- see to it that no American would have to bankrupt himself because of a catastrophic illness.

On the subject of the catastrophic provisions of the bill, Hartke said:

"I have been appalled, as have most of us, by the medical horror stories that have been brought to our attention. Hardly a week passes without news of yet another family pauperized by catastrophic illness. . . .

"Under Medicredit, the tragedy of catastrophic illness would no longer be worsened by the threat—or the actuality—of financial catastrophe. No American family would ever again face the prospect of losing its savings, or its home, or its solvency because of health or medical bills."

Broyhill compared the Medicredit bill with other national health insurance proposals in the Congress.

"According to a report prepared for the House Ways and Means Committee during the last session, the Kennedy-Griffiths proposal would have cost the taxpayers a staggering \$91 billion a year," he said. "This would have meant that health alone took up about one-third of the entire Federal budget. . . .

"Rich or poor, everyone under this proposal would have Uncle Sam pay all or most of his health care bill every year.

"The Medicredit proposal, on the other hand, is designed to spread the cost of medical and health care fairly and equitably over the population on the basis of each American's ability to pay."

Stating that Medicredit is designed to solve the most immediate and pressing problems of the nation's health care system, Hansen emphasized that the AMA plan would "unlock the financial doors that bar many Americans from high quality medical care . . . stress preventive care—annual check-ups, out-of-hospital diagnostic services, well baby care, dental care for children, and home health services . . . provide psychiatric care without limit. . . ."

Predicting that Medicredit would wind up with 200 sponsors in the 93rd Congress . . . 25 more

than in the 92nd . . . Fulton noted that a third of the sponsors were Democrats, which establishes the AMA-backed bill as the national health insurance proposal with the most bipartisan support.

"What this bill's sponsors are endorsing," Congressman Fulton said, "is an approach to the problem of financing health care. What we are all saying, I think, is that we do not believe that the federal government can—or should—assume the entire burden by itself; that we should build on what we have instead of junking it and starting out again from scratch; and that the government role should be confined to that of helping those who need help. . . ."

President Nixon Announces Health Budget Cuts

President Nixon plans to end the 26-year-old Hill-Burton program of federal grants for hospital construction and the regional medical program. His fiscal 1974 budget also calls for cutbacks in programs for community health centers, children's mental health and alcoholism.

Under the budget, Medicare patients would have to pay an additional estimated \$1.2 billion of their hospital and medical bills in the next 18 months.

Aside from Medicare outlays of \$12.6 billion, the federal budget for health—most of it under the Department of Health, Education and Welfare—calls for expenditures of \$9.1 billion in the next 12 months, an increase of \$700 million over the current fiscal year which ends June 30.

Some National Institutes of Health research programs would be cut back but spending on cancer would climb \$91 million to \$445 million, and outlays on heart and lung diseases would increase \$28 million, to \$250 million. Special emphasis would be placed on those types of cancer that cause the highest mortality—lung, breast, large bowel, prostate, bladder and pancreas. Heart research would focus on preventing arteriosclerosis and hypertension.

The NIH program of support for training of research scientists—now \$150 million a year—would be discontinued. The federal government also would reduce its support for training nurses, veterinarians, optometrists, podiatrists, pharmacists and public health personnel. Federal support would be concentrated on training of physicians and dentists.

President Nixon's plans for cutbacks in some health expenditures were foreshadowed by two vetoes of HEW appropriation bills last year.

"My strategy for health in the 1970's stresses

a new federal role and basic reforms to assure that economical, medically appropriate health services are available when needed," he said in his budget message.

An HEW official described the cutbacks as "a conscious decision to identify those programs that have fulfilled their purposes already or are unable to." HEW officials said the regional medical program, which initially was designed to combat heart disease, cancer and strokes, never achieved its goal of providing better planning of health resources locally or speeding research knowledge into therapy. Support would be continued for the 515 centers established under the nine-year-old community mental health program but funds would not be provided to expand the number to the original goal of 2,000.

In the Medicare program, the administration is beginning to put into effect non-legislative reforms that are estimated to save the government \$342 million during the remainder of this fiscal year. The President said he will ask Congress for authority to shift \$600 million a year in charges to Medicare patients.

The combined effect of the legislative proposals and administrative actions would be a net savings to the federal government in fiscal year 1974 of \$849 million, according to the proposed budget for the Department of Health, Education, and Welfare.

Effective January 1, 1974, if Congress agrees:

—Those who are hospitalized would have to pay the first day's charge for room and board and 10 per cent of the charges for all hospital services thereafter. As it is now, a Medicare patient pays \$72—the national average cost of one day in a hospital by a Medicare beneficiary—for the first day of hospitalization and nothing more until the 61st day when he begins paying \$18 a day toward his charges.

A Medicare spokesman said that for a patient hospitalized 13 days, the average for beneficiaries, the cost could increase from \$72 to a minimum of \$158.40. About five million disabled or aged 65 or older will be hospitalized under Medicare during the next fiscal year.

—Under Medicare Part B, the voluntary doctor insurance that will cover 22.5 million persons next year, the patient would pay the first \$85 of his doctor bills and 25 per cent of the remainder. He now pays a \$60 deductible and 20 per cent of subsequent charges. For a patient with a \$500 doctor bill, his share of the cost would increase from \$148 to \$188.75. About 11.6 million beneficiaries will receive medical care during the next fiscal year.

AAFP-Synapse Announce Audiovisual Program

The American Academy of Family Physicians (AAFP) and Synapse Communications Services, Inc. have announced the launching of a contemporary audiovisual program designed to provide the academy's 32,000 member physicians with a unique new form of continuing education.

Representatives of the two organizations said that Synapse would produce a total multi-media program and offer it to academy members on a subscription basis. The academy, the nation's second largest medical association and largest specialty group, will define, review and pass upon the audiovisual program.

Dr. George Rowland, AAFP board member and chairman of the Academy's Commission on Education, said that the new program marks the first time, in his knowledge, that a major medical organization has undertaken to apply this type of audiovisual program to its postgraduate educational mix.

He noted that the academy has required that its members take a minimum of 150 hours of continuing study each three years since its founding in 1947. It is the only national medical group having such a requirement.

Certification in the new specialty of family practice would be aided by the new program, offering academy members a fresh, new approach to the educational requirements. Certification as a family practice specialist is accorded by the American Board of Family Practice, a wholly separate board of certification, after successful completion of a two-day written examination.

Synapse's new four-part learning system will be delivered to the participating doctor in a color-coded container which will include a video cassette, a workbook, models and a series of self-tests.

Medical categories covered will run the gamut of problems family physicians confront on a day-to-day basis, including internal medicine, pediatrics, obstetrics and gynecology, psychiatry, emergency care, surgery and community medicine. Doctors will be encouraged to purchase or lease a video cassette player through a centralized agency.

"The new learning package," said Joseph H. Harris, president of Synapse, "is a marriage of contemporary communication techniques with the educational needs of the medical profession. The educational information we wish to communicate

Pinworm therapy is often a family affair



Contraindications: History of hypersensitivity to thiabendazole.

Warnings: If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.

Precautions: Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction,

patients should be carefully monitored.

Adverse Reactions: Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of *Ascaris* in the mouth and nose. Hypersensitivity reactions

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Antivert[®] (meclizine HCl) has been found useful in the management of vertigo associated with diseases affecting the vestibular system. It is available as Antivert (12.5 mg. meclizine HCl) and Antivert/25 (25 mg. meclizine HCl) scored tablets for convenience and flexibility of dosage. Antivert/25 (25 mg. meclizine HCl) Chewable Tablets are available for the management of nausea, vomiting, and dizziness associated with motion sickness.

CONTRAINDICATIONS. Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12th-15th day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

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*INDICATIONS. Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

ORGANIZATION / Continued

will determine the balance among the media we employ."

Production cost of the learning system will be shared by companies operating in the health care field. The doctor will be charged as little as \$25 per program, and will have the flexibility to subscribe to programs, depending on his educational needs.

"The family doctor is a primary physician who deals with up to 90 percent of the patient's health problems," said Dr. Rowland. "This new educational program is designed to help him to cope with those problems better.

"Our academy members have used continuing education for many years to help them deal with the medical problems of their patients on a day-to-day basis. This new program is an important addition to the postgraduate mix. It will assist the doctor in his continuing effort to be better informed. The end result has got to be better patient care, and that's what we are all after."

UMC Minority Affairs Coordinator Appointed

Peter Stewart, a native Mississippian, is the coordinator of minority student affairs at the University Medical Center, announced Dr. Robert E. Blount, director.

Stewart's appointment to the newly-established post was approved at the January meeting of the Board of Trustees, Institutions of Higher Learning.

The new minority student affairs coordinator will head a special University of Mississippi School of Medicine recruitment project, supported by a \$50,000 grant from the U. S. Department of Health, Education and Welfare. The program is designed to help qualified students from the state's minority groups enter the health field.

Stewart will work with both students and pre-med advisors in the state's colleges, universities, junior colleges and high schools. Helping students get needed financial aid through scholarships and loans, he will also guide advisors in strengthening pre-med programs.

A Jackson State College graduate, Stewart also holds the M.S. degree in urban studies administration from Georgia State College. He was named a Yale University National Urban Fellow, through which he worked with the San Francisco Human Rights Commission and the Community Coalition for Public Schools in Jackson. Prior

to his Medical Center appointment, he was planning coordinator for the Mississippi Council for Voluntary Family Planning.

AMA Sponsors Rural Health Care Meet

The 26th National Conference on Rural Health of the American Medical Association will be held Mar. 29-30 in Dallas at the Statler-Hilton Hotel.

Theme of the conference will be: "Rural Health—Innovation to Implementation." Conference goals will be four-fold: to study community organization for rural health services; to emphasize coordination of rural development and rural health services; to review some possible solutions for rural health care delivery systems; and to study evaluation techniques for rural health services.

Dr. Robert E. Reiheld, of Orrville, Ohio, chairman of the AMA's Council on Rural Health, will preside.

A keynote speaker will be Douglas A. Fenderson, Ph.D., of Bethesda, Md., director of the Office of Special Programs of the Bureau of Health Manpower Education of the National Institutes of Health. Dr. Fenderson will speak on "Health Manpower Developments and Rural Health Services."

The first day conference program will be developed around workshops in which participants will discuss aspects of rural health. Workshop themes will be: "Innovative Approaches for Rural Health Services"; "Bringing Rural Communities and Health Professionals Together"; "Community Organization for Rural Health Services"; "Evaluation—Rural Health Needs and Programs"; "Rural Development and Health Services"; "How Can the Health Team Function?"; "Rural Health Systems Serving the Poor."

A symposium will be conducted on the theme of "What Health Professionals Look for in a Rural Practice." Participants will examine the subject from the viewpoints of the medical student, the physician and the researcher. A profile of rural health care will be presented.

At a dinner session two teenagers will be honored with award presentations. Gabino Cabanilla, Houma, La., will receive a national 4-H Club health award. Dennis Rainey, Henrietta, Tex., will receive the Farm Safety Award of the Future Farmers of America.

Additional workshops on the second conference day will study areas such as: "Innovative Approaches for Rural Emergency Medical Ser-

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| <input type="checkbox"/> | <input type="checkbox"/> Maternal and Child Care programs? |
| <input type="checkbox"/> | <input type="checkbox"/> Federal funds to expand medical schools? |
| <input type="checkbox"/> | <input type="checkbox"/> Federal aid to medical students? |
| <input type="checkbox"/> | <input type="checkbox"/> Expanded nurse training programs? |
| <input type="checkbox"/> | <input type="checkbox"/> Expanded physician's assistant programs? |
| <input type="checkbox"/> | <input type="checkbox"/> Restricted experimentation of HMO's? |
| <input type="checkbox"/> | <input type="checkbox"/> More effective occupational health and safety laws? |
| <input type="checkbox"/> | <input type="checkbox"/> Nation-wide program of community emergency medical services? |
| <input type="checkbox"/> | <input type="checkbox"/> Voluntary national health insurance? |
| <input type="checkbox"/> | <input type="checkbox"/> National health insurance plan federalizing all health and medical care? |

If you're for the first nine but against the tenth,

you stand where the AMA stands. We have vigorously supported virtually all recent legislation to provide more and better health care for the public. We have just as vigorously opposed any plan that would infringe on your right to practice the way you choose.

On such vital issues, the AMA is the most effective and influential spokesman that we, the profession, have. Together, we can make it even more effective in representing ourselves, and our views.

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ORGANIZATION / Continued

vices"; "Medical Students—Motivation for Rural Practice"; "Community Involvement in Area-wide Planning"; "Rural Health Research by Land-grant Universities"; "Rural Development and Health Education"; "Use of the Health Team in Sparsely Populated Areas"; "Health Services for Rural Minority Groups."

A panel headed by Dr. Julian C. Lentz, Jr., of Maryville, Tenn., vice chairman of the AMA Council, will discuss the National Health Service Corps—an enterprise of the federal government to recruit physicians and other health professionals for service in communities in need of more health care. The program is being given full assistance by the AMA.

Preceding the conference (on Mar. 28) a one-day seminar for extension specialists in health education and related fields will be held. Seminar theme will be "Health Education—An Integral Part of the Extension Program."

AAP Schedules Boston Session

Thirty-eight child health care subjects ranging from recent advances in pediatric surgery to adolescent drug dependence will be presented during the American Academy of Pediatrics' annual spring session, scheduled for April 9-12, 1973, in Boston, Mass. The four-day meeting at the Sheraton Boston Hotel is expected to draw more than 2,000 persons.

The presentations will feature short, practical reports from pediatricians and other child health specialists followed by discussion periods. Topics scheduled to be covered include: complications of cystic fibrosis, children out of step with immunizations, indications for use of human growth hormone, fluoride by drop or pill, and present status of rubella vaccine.

The discussions will also focus on many social and behavioral aspects of pediatrics, including: child health supervision, day care centers, current status of the pediatric and school nurse practitioner, and the pros and cons of screening lead and sickle cell diseases.

Fifteen round-table discussions, scheduled for the afternoons, will feature such varied topics as pediatric allergy, problems of the newborn, management of burns, rheumatoid arthritis and related disorders, sex education for physicians, and management of pediatric emergencies.

The academy, headquartered in Evanston, Ill.,

Gantrisin® (sulfisoxazole) Roche® provides your patients with many important advantages:

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Nonobstructed urinary tract infection (mainly cystitis, pyelitis, pyelonephritis) due to susceptible organisms. **Important Note:** *In vitro* sensitivity tests not always reliable; must be coordinated with bacteriological and clinical response. Add aminobenzoic acid to follow-up culture media. Increasing frequency of resistant organisms limits usefulness of antibacterial agents, especially in chronic and recurrent urinary infections. Maximum safe total sulfonamide blood level, 20 mg/100 ml; measure levels as variations may occur.

Contraindications: Hypersensitivity to sulfonamides; infants less than 2 months of age; pregnancy at term and during the nursing period.

Warnings: Safety in pregnancy not established. Do not use for group A beta-hemolytic streptococcal infections, as sequelae (rheumatic fever, glomerulonephritis) are not prevented. Deaths reported from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias. Sore throat, fever, pallor, purpura or jaundice may be early indication of serious blood disorders. CBC and urinalysis with careful microscopic examination should be performed frequently.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy or bronchial asthma. Hemolysis, frequently dose related, may occur in glucose-6-phosphate dehydrogenase-deficient patients. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: **Blood dyscrasias:** Agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia; **Allergic reactions:** Erythema multiforme (Stevens-Johnson syndrome), generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis; **Gastrointestinal reactions:** Nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis; **C.N.S. reactions:** Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia; **Miscellaneous reactions:** Drug fever, chills and toxic nephrosis with oliguria and anuria. Periarteritis nodosa and L.E. phenomenon have occurred. Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thyroid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Supplied: Tablets containing 0.5 Gm sulfisoxazole.



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ACS Publishes for Surgical Patients

The American College of Surgeons is urging patients to discuss the cost of their operation with their surgeons before it takes place.

"The patient needn't hesitate to introduce the subject, and probably the simplest way to do this is by saying simply, 'I'd like to talk about your fee.' Because many patients today have some kind of medical insurance, an easy way to bring the subject up is just to ask, 'Can you tell how much of the cost my insurance will cover?'" Also, "since families covered by medical insurance usually aren't familiar with the details of their coverage, it may save time and misunderstanding to review the contract before talking to the surgeon about it."

This advice is contained in an article, "Yes, But How Much Is It Going to Cost?," appearing in the December issue of the *College Bulletin*, which is published for the 33,000 Fellows (members) of the college in 100 countries. A second article, "The World of Surgery," explaining the routine preparations for an operation, was published in the January issue of the *Bulletin*.

"Obviously, the best time for this discussion is in advance of the operation," the December article continues, "when the nature of the service to be rendered and the subjects of insurance coverage and the family's finances can be examined candidly, and any difference of opinion about the amount of the charge can be discussed and resolved without the misunderstanding and hurt feelings that can easily arise when there has been no mention at all of the subject of fees until the operation has been performed." Continuing, the article said in part: "The worst possible thing to do is just put off payment month after month without saying anything, in which case the doctor may feel he has no choice but to turn the bill over to a collection agency, risking the hard feelings that can result from this method. You can be certain that the doctor dislikes this choice as much as you do and will make every effort to avoid it

if you give him the chance of being frank about the fee and your ability to pay.

"Usually, the surgeon's fee for an operation will be related to the nature and complexity of the operation itself, and the services that may precede and follow the operation. Thus plainly the intricate demands of an operation on the heart and lungs for which weeks of preparation may be required and which itself may take five or six hours or more can be expected to call for a larger fee than a less complicated gallbladder or appendix operation would, and these operations in turn would cost more than, say, a tonsillectomy."

The American College of Surgeons, the largest organization of its kind in the world, is strongly on record in favor of reasonable fees for its members' services and reasonable payment policies. In fact, every one of the college's members has taken a fellowship pledge which says in part: "I promise to make my fees commensurate with the services rendered and with the patient's rights. Moreover, I promise to deal with each patient as I would wish to be dealt with were I in his position."

The January article, "The World of Surgery," discusses fears some patients have before surgery, work of the operating room staff, what happens on the day the operation is scheduled, functions of the recovery room, choosing the surgeon, training of the surgeon and hospital and medical insurance.

Except in the most critical cases, surgical patients have no fear of pain, or disability, or death. "but simply apprehension and anxiety about the unknown," the article said, adding:

"To the outsider, hospital people and hospital procedures are mysterious, and too often, nobody takes time to tell the fearful patient what is going on, and why. As a result, his imagination builds threats of things that never happen. He envisions risks that don't exist.

"To combat such insecurity, surgical patients need information—facts that most surgeons could tell them in a few minutes.

"Most patients would be reassured, for example, to know specifically that *every day 40,000 operations are performed in our hospitals in the United States!* Thus no matter how rare or special it seems to the patient to be, his operation is probably performed hundreds of times daily. The surgeon and his assistants, the anesthesiologists, operating room nurses, and others who are concerned with preparing for the operation, performing it, and managing the after-care in the days that follow, all know what they are doing and have done it many times before. In fact, the risk

of surgery is smaller today than it has ever been before.

"Some of the greatest gains that have been made in surgical science in recent years have been in new methods of preparing the patient for the operation and caring for him afterward.

"Surgeons and manufacturers of all kinds of equipment and supplies used in the operating room are working together constantly to make operations easier for the surgeon and safer for the patient.

"Whatever the nature of the operation, today's surgical patient is the beneficiary of all the knowledge of all the centuries of surgeons and scientists who have helped make operations safe and effective.

"The most important single factor in the success of any operation, of course, is the choice of a surgeon. . . . Only about 60,000 of the nation's 300,000 licensed physicians have had special training in surgery. Today, four or more years of special training after the medical degree are essential to qualify the young medical graduate for a specialized practice in general surgery or in one of the surgical specialties. In many instances the surgeon may elect to take additional specialized training.

"Following completion of such specialized training the surgeon is eligible to be examined by one or another of the boards in the various surgical specialties, or to become a Fellow of the American College of Surgeons, or both. Certification by a specialty board or fellowship in the college is a good indication that a surgeon is qualified to perform an operation."

Reprints of the December and January articles can be obtained from Gordon L. Briggs, Editor, *Bulletin*, American College of Surgeons, 55 East Erie Street, Chicago, Ill. 60611.

Family Doctors Are Making a Comeback

Twenty-five years ago, an organization of family doctors was founded which many regarded, one observer noted, "as a last-ditch stand against the inevitable demise of the family doctor."

Well, a funny thing happened on the way to the funeral.

That organization, now known as the American Academy of Family Physicians, has more than 32,000 members; family practice has become a medical specialty, and medical students from New York to California are saying, in increasing numbers, that they want to be family doctors.

"The amount of interest is phenomenal," says Dr. Eugene S. Farley, director of the family medicine program at the University of Rochester, New York, School of Medicine and Dentistry. "I wish we could take in more." There are 90 students in the medical school—50 are taking family practice electives.

"In 1969, general or family practice was the choice of less than 10 per cent of freshmen medical students in California; in 1972, over a third chose general or family practice," the California Medical Association reports.

A number of medical school deans also report strong interest in family medicine, although some caution that it may be too early to tell if such interest reflects a genuine turning point in career views.

However, these are the facts:

Family practice became a medical specialty in 1969. Now, there are 133 approved residency programs in hospitals throughout the nation, and 35 medical schools have departments or divisions of family practice. As of last July 1, there were 1,015 residents in training. The growth trend is indicated by class figures—there are only 189 third-year residents, representing only 36 per cent of available class places; but for the second-year the figures are 354 and 55 per cent, and for the first-year, 470 or 81 per cent. In other words, family practice is coming on strong.

All of which, medical experts agree, is good news for the American public, since most of its medical needs can be met by a family doctor. There is infrequent need of the specialists who have long dominated medicine, or need of hospitalization.

Dr. Walter C. Bornemeier of Chicago, himself a surgeon, put it this way when he was president of the American Medical Association in 1970:

"When we need, what this nation needs, is education of our medical students to take care of people who have their shoes on, not educated solely to care for people who are wearing hospital gowns."

Doctors in and out of family practice agree that more family physicians (formerly known as general practitioners) should mean two things to Americans: easier access to medical care, and, probably, cheaper care.

"There are two basic problems associated with today's doctor shortage," said Dr. J. Jerome Wildgen of Kalispell, Montana, immediate past president of the American Academy of Family Physicians. "One, the inability to obtain a doctor when one is needed; and, two, the demand for health services—primarily hospital services—has

ORGANIZATION / Continued

forced the cost of health care to unprecedented heights."

Training more primary-care doctors would do much to relieve both problems, he said.

"The first, availability, would be attacked by not just producing more doctors, but doctors who specialize in the whole person," Dr. Wildgen said. "The second, cost, would be attacked from the standpoint that family doctors focus on keeping their patients ambulatory and out of the hospital."

The Willard Report, a 1966 study sponsored by the American Medical Association and largely credited with creating renewed interest in family medicine, said:

"Because of his (family doctor's) prior and continuing knowledge of the patient's problems, there is less need to carry out or repeat many diagnostic procedures.

"As a result, treatment will often be less complicated but even more effective. There may be less need to hospitalize patients, and competent medical care will frequently be less costly in time and money."

There is an old joke about a doctor, trying to make a diagnosis, asking the patient, "You ever had this before?" When the patient says yes, the doctor replies, "Well, you've got it again."

But that anecdote carries some serious truth: If your doctor knows that a complaint *is* due to something he previously diagnosed—perhaps even something emotional—you are not likely to be put through many expensive tests, and unnecessary worry.

Dr. C. H. William Ruhe, director of the AMA's Division of Medical Education and staff secretary of the Willard Committee, also thinks more family doctors will solve much of what has been generally called, "the health care crisis."

"I believe if we had more, the conception of a doctor shortage would disappear," he said. "As I travel and talk with people and ask them what they want of medicine, they tell me, 'A doctor I could call on at any time, to supervise my health and that of my family.'"

If family medicine is so good, then why did it all but fade away?

"The decline was caused by a combination of the increasing amount of medical knowledge and the growth of medical specialties," Dr. Ruhe said. "There was tremendous interest in teaching traditional specialties in depth and almost complete neglect of education of the broad specialist, the generalist. It clearly was the fault of education . . . but it also was inevitable, given the categori-

cal nature of financial support for research and education."

The emphasis was on research, and most government money was available only to support research, said Dr. Ruhe, who formerly was associate dean at the University of Pittsburgh medical school.

"We produced a whole generation of faculty members who were trained, and who lived, in the belief that the greatest good they could do in medicine was to engage in scientific investigation. Consequently, they offered this view to their students.

"There also was a feeling among some students that perhaps they couldn't handle all the new knowledge and had best try to handle just some of it. In addition, students saw that the status, the rewards, and the relatively shorter hours, were in the narrower specialties."

By 1960, there were only 75,000 general practitioners in the nation, compared with 112,000 in 1931. By 1967, it was down to 60,000. By that year the Willard Committee, chaired by Dr. William R. Willard of Lexington, Ky., had completed its two-year study of family practice. The panel said:

"The committee believes medicine needs a new kind of specialist, the family physician who is educated to provide comprehensive personal health care. Preparation of large numbers of such physicians is essential, if the public is to receive maximum benefits from American medicine."

About the same time, a wave of social consciousness was sweeping America. Concern for the sick, the needy and the consumer aroused the young, including medical and pre-medical students.

How much a factor this has been in reviving family practice is subject to conjecture. But Dr. J. Hutchinson Williams, assistant dean at Ohio State University medical school, said he believes "a change in social consciousness, with less concern about security and more about the quality of life and care of people," explains the resurgence of interest.

However, in view of the Willard Committee, there obviously was no generation gap in regard to what was needed.

One of those stirred to action was a young physician fresh out of internship at St. Louis City Hospital.

"All of our schools were training specialists and no one was going out to take care of the people," said Dr. Glen E. Tomlinson of Lincoln, Ill. "If you broke a bone, you could get it set;

and if you had a heart attack, you could get into a coronary care unit. But if you just needed a doctor to take care of you, it was almost impossible to get one.

"The patient was put in the position of just about deciding what was wrong with him, in order to tell which doctor he should go to."

Dr. Tomlinson got up at an Illinois State Medical Society meeting in 1968 and introduced a resolution urging that state-supported medical schools in Illinois be required to develop family practice programs. Somewhat to his surprise, it was supported by the society and ultimately adopted by the state legislature.

"I had no idea I would be a part of the development," Dr. Tomlinson said, "but I served on the committee which designed the programs, and they asked me if I wanted to direct one, so here I am."

"Here" is Cook County Hospital in Chicago, where Dr. Tomlinson heads the Joint Family Practice Program of the University of Illinois and the hospital, a residency program which began in December 1971. It eventually will have 60 residents in this new kind of training.

Traditionally, medical school graduates served big city hospitals where they treated anyone who came in the door, seldom following up on a patient or even seeing the same patient twice.

But at Cook County, the residents will have "offices" and the patients they are assigned will stay with them.

"They may have up to 200 families," Dr. Tomlinson said. "And they will carry those patients all through their three-year residency. They will deliver babies, and take care of those babies afterwards."

No matter which practice the resident may be assigned to—surgery, pediatrics, etc.—he will continue to follow his patients in the Model Family Practice Unit.

Such a model is vital, medical educators say, in order for the new doctors to get a real grasp of office-type, family practice. This is a radical departure from the usual training, which was described in the Willard Report like this:

"Clinical teaching at most medical schools revolves almost entirely around patients who are hospitalized for acute illness. There is little opportunity for the student to follow the course of chronic illness, to become familiar with the long-term health problems of patients, or to see disease as it occurs in the community."

The residents will not only see patients with their shoes on in their "offices," but will get away from the hospital setting entirely, spending one-

half day a week or more in a neighborhood clinic.

To gain what is called "core content competency," each resident will rotate among various disciplines in his first year.

He will spend four months in medicine; two in pediatrics, including the newborn nurseries; two in general surgery; two in obstetrics and gynecology and two in elective courses. While doing this, he will return to the Model Unit on regularly scheduled days to see his panel of families.

In either his first or second year, the resident also will spend a month in the emergency room service, which at Cook County Hospital is one of the largest in the nation. (He also will be on emergency call while on the various practices, such as obstetrics.)

Most of the third year will be spent in the Model Unit, admitting and caring for members of his patient group as need arises.

Out of such training will come a man or woman who will be what the AMA's Dr. Ruhe calls "sort of a general manager of medicine. He will handle all aspects of care—if it is something he can handle, which most of the time it will be. If he can't, then he will refer the patient to another type of specialist, but he will continue his relationship with the patient before and after the referral. His aim is to see that the patient gets the right kind of care."

An important role of the family doctor is to serve as the patient's "point of entry" into the health care system, which daily grows more complex. In essence, said the Willard Committee, the family physician is one who:

"Assumes responsibility for the patient's comprehensive and continuous health care . . . and accepts responsibility for (that care) within the context of his environment, including the community and the family or a comparable social unit."

In other words, not only does the modern family physician concern himself with "is the family healthy?" but also with, "is the community healthy?" Pollution, lack of health services, poverty and other problems a town might have are all part of "community health."

(One bit of explanation—reference to the "modern" family doctor is not meant to take anything away from those family physicians in practice. The new FP will be just like the old one, for example, in "keeping up" with medical developments—the Academy of Family Physicians requires members to take 150 hours of accredited education every three years, and was the first medical group to make study mandatory.)

Besides greater skills, today's family doctor differs in other ways from the oldtime general practitioner. For one thing, the demands of continuing education are a factor in the growth of group practice, as opposed to the one-man office. A doctor practicing alone finds it extremely difficult to leave his patients for a couple of weeks of study at a medical center or meeting. Economic advantages—sharing the cost of modern, expensive equipment—and the advantage of handy consultation also make the group attractive.

"I would never go back to solo practice," Dr. Tomlinson said. "Ideally, I think there should be four doctors in a group. That's small enough so they all know each other's abilities, but you don't have a big management problem. That way, three can always be on duty while the fourth is studying or on vacation."

"We are training, along with our residents, 10 nurse-practitioners," Dr. Tomlinson said. "I think the house call will become part of the expanded role of the nurse. Visiting nurse associations are already doing it to a degree."

Nurse-practitioners are a new type of health care professional, with special training beyond usual nursing courses. They not only *are* making house calls today, they are serving entire rural towns which have no physician (keeping in touch by telephone with doctors at a medical center miles away).

"The nurse can take a patient's temperature, blood pressure and in general do an adequate examination, then bring the report back to the office," Dr. Tomlinson said. "Or, if needed, she can call me from the patient's home and say he needs to be seen, or sent to the hospital. But I can see several patients in the time it takes to make a house call—and the nurse can do about all I could in the home situation, anyway."

Even in the office, they can handle many patients, he added. "For example, those on maintenance therapy. Say the patient is being treated for high blood pressure—the nurse can check his pressure, weight and so forth, and if everything is okay, she can send him home; there is no need for him to see the doctor. But if any of the predetermined guidelines are abnormal, then the nurse can call in the physician."

With more family doctors in practice, and with their efficiency greatly increased by the use of nurses and other aides, the "doctor shortage" would indeed seem to be on the way out.

But will interest in family medicine continue?

Dr. Tomlinson thinks so, not only because of

reasons given earlier, but for some purely pragmatic ones.

"A great part of it is common sense and recognizing that many specialties are full up," he said. "For example, a lot of surgeons are sitting around hospital locker rooms waiting for something to turn up. A lot more are doing family practice by necessity, rather than desire or training."

"And as for specialties in general—it's been proven that a well-trained family physician can adequately care for 80-85 per cent of all those who come to his office, and knows how to refer those who he feels needs more specialized skills."

Dr. Ruhe of the AMA says, "If new doctors find that family practice can be a rewarding life, and I think they will, then we will be all right. But they have to be shown that life, through a model practice unit in their residency."

How many family doctors do we need?

"I personally believe that the AMA should make a strong pitch for a specific percentage of medical graduates each year to go into family practice. I am going to recommend in a new health manpower report that the AMA urge that at least 50 per cent of all medical school graduates enter primary care specialties in the years ahead."

Obviously, there are financial rewards in being a family doctor. But what else is there? Why does a student choose that field, and why does a physician remain in it?

"I just think it's the best way to serve the most people," said Silas Thomas, first-year student at Northwestern University medical school in Chicago. "And I don't mean that in the way of mass production, or making a lot of money—but in the sense of not having to turn anyone away, telling them that 'I only treat throats' or something like that."

Mr. Thomas, a black man, grew up on Chicago's south side and thus has seen the doctor shortage in its most acute form, as that area has been called a "medical wasteland."

Explains Dr. Tomlinson:

"Well, as a specialist, you know you can be a good technician, that's your training. But you really need to know a little about the patient. And to me, the real personal satisfaction in medicine is knowing the patient, sitting down with him and talking about his problem and coming up with a solution."

"There is nothing like hearing a patient say, 'I feel better.' It makes you feel good. It makes all the stress and concern worthwhile."—AMA News Features—American Medical Association.

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ORIGINAL PAPERS

The Incompetent Cervix

GRAND ROUNDS, DEPARTMENT OF OBSTETRICS
AND GYNECOLOGY, UNIVERSITY OF MISSISSIPPI
SCHOOL OF MEDICINE

January 4, 1973

DONALD M. SHERLINE, M.D., Editor

CASE PRESENTATION

J. K. Hospital No. 23965x181083

Dr. Thomas Holden: This is a 21-year-old Negro female, gravida 6, para 0140, from Jackson. Her last menstrual period was April 4, 1972, with an expected date of confinement of January 11, 1973.

She has a history of good health with the exception of severe urinary tract infections as a child.

Her pregnancy history consists of:

(1) 1967, 5 mos. gestation, cramps, D&C, UMC.

(2) 1968, 3 mos. gestation, cramps, D&C, UMC.

(3) 1968, 3 mos. gestation, at home, no D&C.

(4) 1969, 4 mos. gestation, LMD, no D&C.

(5) 1970, Shirodkar procedure at UMC at 22 weeks gestation. Spontaneous labor at 28 weeks gestation, sutures cut, delivered a premature infant who died.

Her family history reveals five brothers and five sisters. One of her sisters had eight abortions and two mature deliveries. Her other sisters all have living children but at least one premature delivery or abortion.

She has not used any contraception and there is no history of past pelvic infections.

The patient was admitted to the University Medical Center on July 6, 1972, at 12 weeks gestation with cervix 1.5 cm. dilated and slightly effaced. A McDonald cerclage procedure, using No. 4 braided silk, was performed under spinal anesthesia. She was given 250 mg. Delalutin following surgery and kept at bed rest for six days before discharge.

She was maintained at near complete bed rest on shock blocks for the remainder of her pregnancy. She was placed on a high protein diet and was given weekly IM injections of Delalutin, 250 mg.*

The patient was again admitted to UMC on December 23, 1972, in mild labor with the cervix effacing. Her sutures were cut and removed. Effective labor did not start. Oxytocin augmentation was attempted, but the cervix failed to dilate or the vertex to descend. She was brought back to the Delivery Suite two days later and, after amniotomy and pitocin stimulation, effective labor ensued. She delivered a 2722 gram male infant with Apgars of 9 and 9. Her postpartum course was uneventful.

DISCUSSION

Dr. Donald M. Sherline: The case presented could be considered a rather classic case of a con-

From the Department of Obstetrics and Gynecology, University of Mississippi School of Medicine, Jackson, Miss.

* Delalutin T.M.—Hydroxyprogesterone Caproate Injection, Squibb Pharmaceuticals, Princeton, New Jersey 08540.

THE INCOMPETENT CERVIX

genital incompetent cervix. The patient had two mid-trimester abortions, one prior attempt at cerclage and a family history of one sister with eight abortions and two mature deliveries. Four other sisters all had at least one premature delivery or abortion.

The primary symptom of an incompetent cervix is generally a painless second trimester abortion. The patient initially presents with the complaints of vague vaginal discomfort, vaginal discharge, and perhaps some pelvic pressure. Physical findings usually include a dilated and effaced cervix with protruding membranes.

The pathophysiology of this symptom was first postulated by Danforth in 1947.¹ At that time, he demonstrated that the isthmus of the normal uterus unfolds down to a fibrous cervix which does not contain either elastic fibers or muscle. This fibrous band then acts to contain the products of conception until labor ensues and the cervix dilates. Interruption of this fibrous band allows the cervix (when pressure is placed upon it) to dilate prior to the onset of labor.

ETIOLOGY

The etiology of the incompetent cervix has been divided into three types:

(1) Post-trauma—A traumatic delivery with a cervical laceration that is not repaired; a too forceful dilatation and curettage using either the traditional Hegar or Hank dilators, the now unused Goodell dilator and the vibrodilator, have all been implicated in the creation of an incompetent cervix. Other cervical surgery which destroys the competency of the internal os has also been implicated.

(2) Congenital—In Danforth's original work the fibrous nature of the cervix was demonstrated. He noted the presence of smooth muscle in many histologic sections, but did not correlate this with the incompetent cervix until 1961, when he reported two patients with repeated mid-trimester abortions, no history of trauma, and a large amount of smooth muscle on histologic section.² Thus, some patients, such as our present patient, do not have a history of a full term pregnancy or of cervical trauma that would account for a traumatic interruption of the fibrous band, but instead do have an increased amount of muscle tissue within the cervix which allows the cervix to act more like an elastic band than a fibrous band. The critical ratio of muscle to fibrous tissue has not been demonstrated. Unfortunately, we do not have a connective tissue biopsy of the present patient.

(3) Functional—This is truly premature labor and not an incompetent cervix and will not be discussed at this time.

DIAGNOSIS

The diagnosis of an incompetent cervix is made basically on a history of repeated, painless, mid-trimester abortions. Perhaps, during pregnancy, a dilated cervix with protruding membranes is palpated. Attempts at radiographic diagnosis of an incompetent cervix have not been uniformly successful. Mann used a double balloon in which he attempted to demonstrate dilatation of the internal os and of the cervix.³ Other investigators have used a special short cannula for hysterosalpingography which allowed the cervix to be visualized during hystrogram. Neither proved reliable.

Therapy of the incompetent cervix has been divided into inter- and intra-pregnancy regimes. The Lash procedure is performed between pregnancies and its success is highest in the post-traumatic group. An attempt is made to demonstrate a cervical defect by passing a dilator through the cervix and then palpating the cervical tissue about the dilator. A wedge of cervix containing the defect is excised and the cervix closed. The patient is then allowed to deliver vaginally when she becomes pregnant.

If this repair should break down, a secondary repair with wire sutures is carried out. Following this procedure, the patient is delivered by cesarean section.⁴

Repairs done during pregnancy depend upon external splinting of the cervix with suture material. The popular Shirodkar procedure is carried out by placing a mersilene tape suture beneath the cervical mucosa and anchoring it both anteriorly and posteriorly. The McDonald procedure is simply taking rather deep bites of the cervix in an external cerclage fashion. This should be done two to three cms. above the external os. For a more secure repair, two ligatures are placed. Other materials that have been used include strips of human fascia lata, ox fascia and a polyethylene tube with a suture material inside.⁵ The McDonald procedure uses silk.

It is important to use suture material having a wide diameter so that with pressure it will not cut through and amputate the cervix.

The congenital type of incompetent cervix is best repaired by using either the Shirodkar or McDonald procedure.

The preferred method of delivery is simply to cut the suture at the appropriate week of gestation and allow vaginal delivery to take place.

Other non-surgical methods of splinting the cervix have been advocated. These include both a

Smith-Hodge Pessary and a balloon splint that was first used in the Department of Obstetrics and Gynecology at Baylor University School of Medicine.

Electrocautery and electrofulguration have also been used in an attempt to produce deep scar tissue in the cervix and thus reform the fibrous band.

Rest, sedation and progesterone have all been advocated for concomitant therapy. No definitive study has shown that these do help.

It is best to time the repair for after the end of the first trimester and between the sixteenth and twentieth week and with minimal effacement and dilatation of the cervix.

Successful results that can be expected by restricting the diagnosis to a highly selective group of patients should be in the 77 per cent to 85 per cent range.⁶

Contraindications to repair include: (1) first trimester abortion; (2) ruptured membranes; (3) labor; and (4) infection. The suture should be cut immediately if labor or rupture of the membranes should ensue.

COMMENTS

Dr. Henry A. Thiede: The patient has a history of urinary tract infection which suggests the possibility of a renal anomaly. Was an intravenous pyelogram done on this patient? Often renal anomalies may be associated with uterine anomalies and, of course, uterine anomalies are often associated with premature delivery. Was a hysterosalpingogram done on this patient?

We know that many patients with an incompetent cervix may be managed by bed rest alone. It is effective, but not practical. Was physical therapy given to this patient while she was on near complete bed rest? Was there any wasting or change in calcium metabolism during her period of bed rest? Intravascular coagulation and a generalized demineralization can be a problem for patients on prolonged bed rest.

I am uneasy about the use of Delalutin and the possible masculinization of the fetus; we certainly

have little evidence of its salutary effect on the uterus.

Surgical complications that should be anticipated are: (1) hemorrhage and infection at the operative site; (2) difficulty in removal of the suture at onset of labor (It is not always easy and, therefore, the ends of the suture should be left long for easy identification.); and (3) cervical lacerations often follow vaginal delivery and must be routinely searched for and when found, repaired.

Dr. Holden: No intravenous pyelogram or hysterosalpingogram was performed on this patient. The only time she has been seen at the University Medical Center has been during her pregnancies.

The reason for her bed rest was simply that with one failed Shirodkar we wanted to keep pressure off of the cervix as much as possible.

The patient did not have physical therapy and bed rest was not that strict. She did come to the clinic one time per week and was allowed up as needed at home. No evidence of muscle wasting or demineralization was noted. ★★★

2500 North State Street (39216)

Suggested Review Reading: Rovinsky, J. J., "The Incompetent Cervix," Medical, Surgical and Gynecological Complications of Pregnancy, 2nd Edition, Pages 383-401.

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MEDICAL DEFINITIONS

"An appendix is something found in the back of a book. Sometimes they get in people and have to be taken out."

—Third Grader

Even Small Hospitals Need Blood Gases

JOHN D. MORGAN, M.D.

McComb, Mississippi and

JOHN R. WILLIAMS, M.D.

Greenville, Mississippi

ALTHOUGH ARTERIAL blood gas studies are widely used in teaching hospitals today, many physicians practice in smaller community hospitals lacking facilities for these studies. The purpose of this article is to briefly give the uses of blood gases, explain the technique of performing the test, describe our experience, note some pitfalls to avoid, and show that arterial puncture can be competently and safely performed by paramedical personnel.

Indications for arterial blood gas determinations are listed in Table I. For properly evaluating dyspnea and/or cyanosis, the blood gas determination should be done before the patient is placed on oxygen therapy.

Blood gases are quite helpful in evaluating the cause of unexplained dyspnea. With the presence of a completely normal arterial blood gas, it is very, very rare that a pulmonary embolus or other derangement of respiratory function is causing the patient to be dyspneic.

Serial blood gas determinations are absolutely necessary for the treatment of respiratory failure and should be as much a part in the management of this problem as blood sugars are in the management of diabetic acidosis. Serial determinations are the only rational way to make adjustments of ventilatory controls for patients in the postoperative period or in patients in intensive care units being ventilated for a multitude of reasons.

Diabetic acidosis, lactic acidosis, or severe metabolic acidosis from other causes can be better managed if intravenous bicarbonate therapy is regulated with serial determinations of pH. Monitoring of the pH is very necessary because the pa-

tient continues to hyperventilate long after the pH of blood has reached normal value. A great hazard is that bicarbonate will be prescribed simply on the basis of continued hyperventilation. In such circumstances a severe iatrogenic metabolic alkalosis may occur.

Arterial blood gas utilization in three general hospitals in Mississippi is reported along with indications and pitfalls in the use of these studies. Stress is placed on having paramedical personnel do arterial punctures.

In the work-up of polycythemia one knows that if the PO_2 is above 65 mm of mercury after exercise, then the polycythemia is primary rather than secondary to respiratory disease. Pediatricians find arterial blood gases invaluable in treating the newborn respiratory distress syndrome. Blood is usually analyzed from a catheter placed into the umbilical vein.

TABLE I
INDICATIONS FOR ARTERIAL BLOOD GAS DETERMINATIONS

- | |
|---|
| 1. Unexplained dyspnea or cyanosis |
| 2. Management of respiratory failure |
| 3. Management of comatose patients on ventilator treatment |
| 4. Investigation of cyanosis or drowsiness in the postoperative patient |
| 5. Serial determination of need for intravenous bicarbonate in severe diabetic acidosis or in lactic acidosis |
| 6. Differentiating primary from secondary polycythemia |
| 7. Management of newborn respiratory distress syndrome |

From the Departments of Internal Medicine, Southwest Mississippi General Hospital, McComb; Washington County General and King's Daughters Hospitals, Greenville, Miss.

The technique of arterial puncture is quite simple.^{1,2} The skin is prepared with alcohol for single stick puncture, but for indwelling catheters a septrisol scrub and alcohol are used. Puncture is made with a 20 gauge needle connected to a 10 cc glass syringe which has been thoroughly rinsed with heparin solution leaving a tiny amount of heparin in the tip of the syringe.

TABLE II
NORMAL VALUES—ARTERIAL BLOOD

pH	= 7.38-7.42
pO ₂	= 80-90 mm Hg.
pCO ₂	= 38-42 mm Hg.

Although it is rarely necessary, up to 3 cc of 1 per cent Xylocaine local anesthesia may be infiltrated in the area of arterial puncture. The preferred site is the brachial artery although the radial artery is sometimes used. In patients who have body casts or who are severely burned, or for other reasons these arteries are not available, the femoral artery can be utilized. It is most important that the blood be observed to pump itself into the syringe while the sample is being collected. After arterial puncture, the site is compressed firmly for five minutes *by the clock* to make sure that excess bleeding does not occur. This is most important.

Only in the past year or two have non-teaching hospitals in Mississippi acquired any great experience in the use of arterial blood gases. The Southwest Mississippi General Hospital in McComb is a 106 bed hospital, situated in an urban area of 25,000 people, drawing patients from about 45 miles, staffed by 16 physicians; divided about equally between family practice specialists and other physicians. Arterial gas analyses are performed by all four members of the Inhalation Therapy Department,^{3,4} consisting of one fully trained inhalation therapist and three inhalation therapy technicians. Over a 12-month period, 665 blood gas determinations were done, and 77 per cent of these showed significant abnormalities (defined as pH over 7.45 or under 7.35, pO₂ less than 75 mm mercury or pCO₂ over 44 mm mercury). There has been no problem with arterial

thrombosis, excess bleeding, permanent nerve injury or sepsis attributed to arterial puncture.

In Greenville, Washington County General Hospital has 154 beds and King's Daughters Hospital has 117 beds. There are over 40 physicians in this city of 50,000, which is a referral center for an area with a radius of 75 miles. Arterial puncture is done by laboratory technicians from the brachial and radial artery, and two technicians have been allowed to do femoral artery sticks. Each hospital does about 20-30 arterial blood gas determinations a month and in addition, Washington County General Hospital does venous pH and pCO₂ on all electrolyte studies. I.L. Blood Gas Apparatus is available at both hospitals and the machines are under the supervision of the general chemistry lab. In the month of October there were 90 pH studies done. No complications from arterial puncture have occurred at either of these two hospitals.

There are some pitfalls to avoid in the use of arterial blood gases. The most common problem is the obtaining of a sample of venous blood instead of arterial blood. This can be avoided if loose fitting glass syringes are used and the technician makes sure no suction is applied to the syringe while the sample is being collected, since only arterial blood will pump itself into the syringe. If the machine is not calibrated frequently, erroneous values will be reported. It is wise to have as few technicians as possible using the blood gas apparatus since errors increase directly in proportion to the number of different technicians using the machine. Unbelievable blood gas values will be reported if the water bath is turned off or is not working. As with any laboratory test, the physician should look critically at any values which disagree with his clinical impression. ★★★

332 Fairview Avenue (38701)

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Radiologic Seminar CXXVI: Ruminations on Radiologic Accuracy

ROBERT D. SLOAN, M.D.

Jackson, Mississippi

A CLINICAL RADIOGRAPH is simply a sheet of photographic film which, when viewed through transmitted light, presents varying shades of gray arranged in differing patterns. It is the eyes and brain of the observer which converts these shadows into useful information. A trained observer should be able to view a radiograph objectively, sorting out the normal and abnormal patterns, and project a tentative analysis. After this objective review, and prior to a final opinion, the study should be evaluated in terms of the specific clinical situation. This clinical data may result in the identification of pathology underevaluated on the objective survey, but is of greater importance in terms of limiting differential probabilities once pathology has been shown.

Most clinicians ordering and viewing radiographs give little thought to basic concepts of radiologic accuracy. On reflection, the need for properly ordered and technically adequate studies is apparent to all, and most would agree with the concept that there are variations in competence in interpreting radiographs, based to some extent upon experience, training and individual capabilities in problem solving. Less well understood is the matter of intraindividual variations. Most of us would like to think that we are quite consistent in our evaluation of objective data, but testing experiments have shown that there is surprising variation in the interpretation of the same radiograph, by the same individual, on different occasions. I would hasten to add that this intraindividual variation in analyzing objective data cuts across all aspects of clinical medicine, and is not limited to radiology. The only way to decrease

this inherent limitation is to have the same data evaluated by two or more observers, with consultative reevaluation if differing opinions have been reached. Of more importance, however, in terms of the current discussion on radiologic accuracy, is a clear understanding of the capabilities and limitations of radiologic technics in terms of (a) the demonstration of pathology and (b) the identification of the specific etiology of a demonstrated pathological process.

In terms of the demonstration of pathology, it must always be remembered that radiologic technics are capable of showing only gross anatomical structures and pathological changes. For example, a 10 cm. mass in the lung parenchyma will be patently obvious on a chest film, and incidentally totally undetectable by any other methods of clinical examination. A three to five mm. non-calcified parenchymal nodule, however, will be identified only if it is projected clear of such structures as the heart and rib cage, and if it happens to catch the eye of the observer. In multiple myeloma the marrow may be packed with plasma cells, but until a significant number of bony trabeculae have been eroded by the neoplasm the bone will present a normal radiographic appearance. Hence in myeloma there is a significant incidence of false negative skeletal surveys. With an adequate concentration of contrast material in the gallbladder, cholecystography is an extremely accurate method of evaluating the presence or absence of cholelithiasis, and here the incidence of both false negative and false positive reports should be quite low. Radiographs may be of considerable value in determining the presence of mechanical small bowel obstruction, but cannot with consistency differentiate between strangulated or nonstrangulated bowel, a point of vital concern to the patient's welfare. Thus it is that over-esti-

Sponsored by the Mississippi Radiological Society. From the Department of Radiology, University Medical Center, Jackson, Miss.

mating or under-estimating the capabilities of a radiograph technic to demonstrate a given pathological process may cause serious clinical errors.

The second point is that it must be understood that there is a distinct difference between the radiographic demonstration of pathology and the radiologic evaluation of the etiology of that pathology. The presence of a grossly dilated esophagus in achalasia can be uniformly demonstrated on barium swallow, and the radiographic pattern permits a specific and accurate diagnosis. An intravenous pyelogram may demonstrate a mass renal lesion, but it requires renal angiography to clearly differentiate between a cyst and tumor, although here again a specific diagnosis can usually be made. A two cm. parenchymal coin lesion may be quite apparent on a chest film, but there are real limitations in the radiologic ability to ascertain its histologic nature, or more specifically

to state whether it is a benign or malignant process. Pulmonary blastomycosis usually produces gross pathologic findings on a chest film, but the patterns produced are so protean that they frequently defy a specific etiologic evaluation. In this situation it will be uncommon for the diagnosis of blastomycosis to be offered with any real degree of probability on the basis of the radiographic appearance. It is thus apparent that there are differing degrees of etiological probability that can be offered, depending upon the nature of the underlying disease and the particular radiographic pattern produced. To use radiologic technics intelligently in diagnostic problem solving, therefore, one has to learn which patterns are pathognomonic, which are specific within a narrow range of probabilities, and which are totally nonspecific in their appearance. ★★★

2500 North State Street (39216)

SOME COMPLIMENT!

The English teacher came to school one day with a dyed white streak in her brown hair. Little Billy was the first to notice her new hairdo. With all the enthusiasm of a nine-year-old, he called out, "Oh, how nice you look, Mrs. Gregory. Just like a skunk!"

Where do you stand on this Legislation? Test Yourself:

- | Pro | Con |
|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> Maternal and Child Care programs? |
| <input type="checkbox"/> | <input type="checkbox"/> Federal funds to expand medical schools? |
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| <input type="checkbox"/> | <input type="checkbox"/> Expanded nurse training programs? |
| <input type="checkbox"/> | <input type="checkbox"/> Expanded physician's assistant programs? |
| <input type="checkbox"/> | <input type="checkbox"/> Restricted experimentation of HMO's? |
| <input type="checkbox"/> | <input type="checkbox"/> More effective occupational health and safety laws? |
| <input type="checkbox"/> | <input type="checkbox"/> Nation-wide program of community emergency medical services? |
| <input type="checkbox"/> | <input type="checkbox"/> Voluntary national health insurance? |
| <input type="checkbox"/> | <input type="checkbox"/> National health insurance plan federalizing all health and medical care? |

If you're for the first nine but against the tenth,

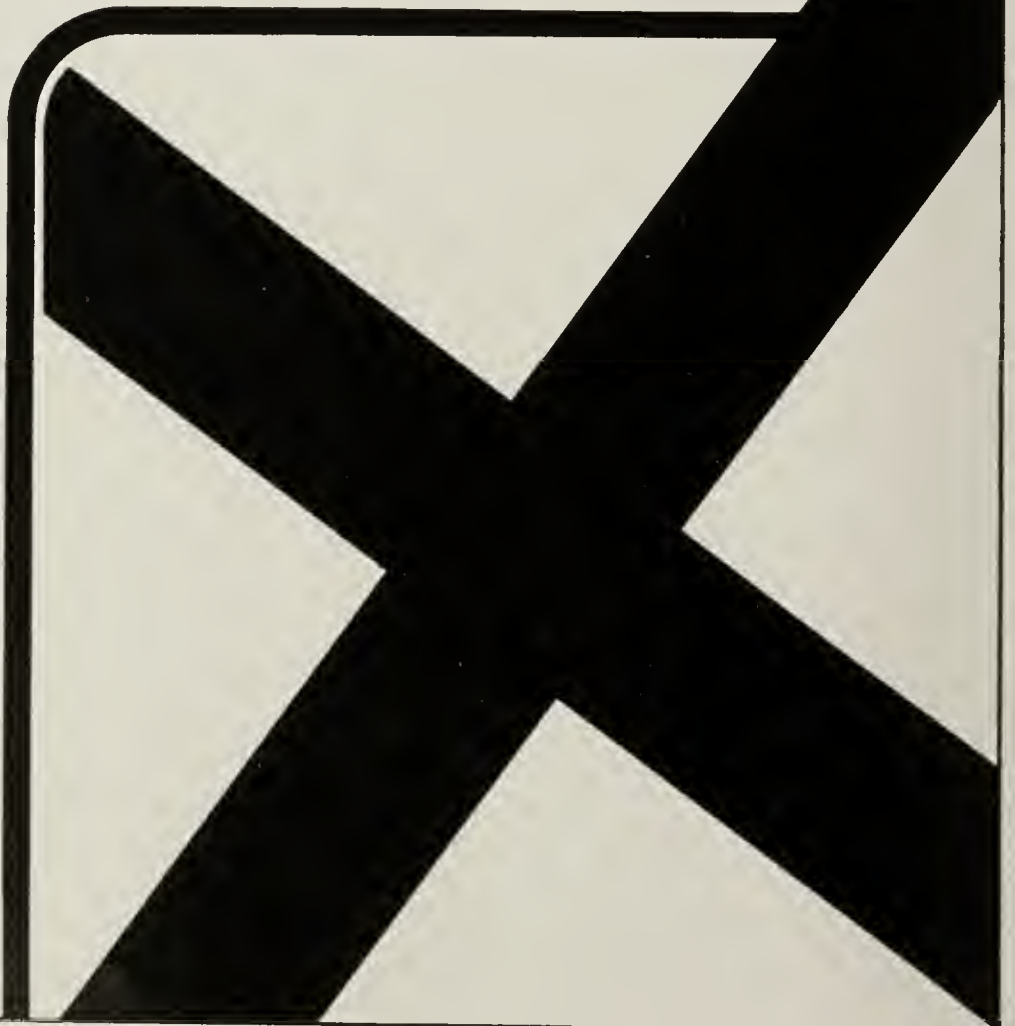
you stand where the AMA stands. We have vigorously supported virtually all recent legislation to provide more and better health care for the public. We have just as vigorously opposed any plan that would infringe on your right to practice the way you choose.

On such vital issues, the AMA is the most effective and influential spokesman that we, the profession, have. Together, we can make it even more effective in representing ourselves, and our views.

Join us.

We can do much more together.

American Medical Association
535 N. Dearborn St./Chicago, Ill. 60610



105th Annual Session

Mississippi State Medical Association

April 30-May 3, 1973

Biloxi

MISSISSIPPI'S GULF COAST will become the state's medical capitol April 30-May 3 as the 105th Annual Session of the association gets underway at the Sheraton-Biloxi. Seven scientific specialty sessions, fifteen specialty groups, four medical alumni occasions, technical and scientific exhibits, the House of Delegates, and a host of fellowship events are slated for the four-day meet.

Dr. Charles R. Jenkins of Laurel, association president, will address the opening meeting of the House of Delegates on April 30. House Speaker John B. Howell of Canton and Vice Speaker Walter H. Simmons of Jackson said that reports and resolutions will be presented at the opening meeting. Final actions will come on May 3 when 1973-74 officers are elected.

Dr. Arthur A. Derrick, Jr., of Durant will be inaugurated president for the new year during closing ceremonies on the final day.

Dr. Raymond S. Martin, Jr., of Jackson said that the Scientific Assembly will open on Tuesday morning, May 1, and continue through Thursday noon. Dr. Martin heads the group which has planned and scheduled the general and specialty sessions, exhibits, and fellowship occasions.

Principal speaker for the annual session is Dr. C. A. Hoffman of Huntington, W. Va., president of the American Medical Association. He is scheduled to address the opening meeting of the House of Delegates on April 30, Dr. Jenkins said.

The Woman's Auxiliary will conduct its 50th Annual Session concurrently during April 30-May 2, also headquartering at the Sheraton-Biloxi, according to Mrs. Clarence H. Webb, Jr., of Jackson, state president. Mrs. W. H. Preston, Jr., of Booneville will be inaugurated 1973-74 president at the meeting. General chairman for the ladies' meet is Mrs. Louis A. Farber of Jackson.

OFFICIAL CALL

To all members of the Mississippi
State Medical Association:

The 105th Annual Session of the Mississippi State Medical Association is called to meet at Biloxi, Mississippi, on Monday, April 30, 1973, pursuant to Article V of the Constitution. The House of Delegates will be convened at 9 o'clock in the morning at the Sheraton-Biloxi on April 30.

The Scientific Assembly, consisting of the seven general sessions, will meet during May 1-3, 1973.

No member or guest will be permitted to participate in any aspect of the annual session until regularly registered.

CHARLES R. JENKINS
PRESIDENT

RAYMOND S. MARTIN, JR.
SECRETARY-TREASURER

Medical alumni occasions are set for Monday and Tuesday evenings, and the association cocktail party and fellowship hour is the Wednesday feature.

The Sheraton-Biloxi luxury hotel will again host the annual session. Located immediately east of the Broadwater Beach Hotel, the relatively new complex consists of a nine-story tower fronting on the Gulf with five connected two- and three-story lanai units on the north or back. The Sheraton-Biloxi is accepting reservations subject to sell-out, after which registrants will be given priority at the adjacently-sited Ramada Inn and Holiday Inn.

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GUY T. VISE, Meridian	1958-59
STANLEY A. HILL, Corinth	1959-60
G. SWINK HICKS, Natchez	1960-61
LAWRENCE W. LONG, Jackson	1961-62
C. P. CRENSHAW, Collins	1962-63
OMAR SIMMONS, Newton	1964-65
EVERETT CRAWFORD, Tylertown	1965-66
JAMES T. THOMPSON, Moss Point	1966-67
TEMPLE AINSWORTH, Jackson	1967-68
JOSEPH B. ROGERS, Oxford	1968-69
JAMES L. ROYALS, Jackson	1969-70
PAUL B. BRUMBY, Lexington	1970-71
ARTHUR E. BROWN, Columbus	1971-72

ACTIVITIES CALENDAR

REGISTRATION

General Registration for the Scientific Assembly and House of Delegates will be located at the second level (Grand Ballroom and Gulf Rooms) in the Sheraton-Biloxi. No person may be admitted to any activity of the annual session without first registering. Hours of registration will be 2:00 to 4:00 p.m. Sunday, April 29; 8:00 a.m. to 5:00 p.m., Monday, Tuesday, and Wednesday, April 30-May 2; and 8:00 a.m. to 1:00 p.m., Thursday, May 3. The secretary's office will be located off the West Lobby on the second level.

SUNDAY, APRIL 29, 1973

- 9:00 a.m. Seminar on Family Planning Methodology, Gulf Room D
- 2:00 p.m. Miss. Association of Pathologists, Business Meeting, Biloxi Room
- 2:00 p.m. Miss. Radiological Society, Scientific Program, Boston Room
- 6:00 p.m. Miss. Society of Anesthesiologists, Country Club of Jackson (Jackson, Miss.)

MONDAY, APRIL 30, 1973

- 7:00 a.m. Reference Committees Breakfast, Gulf Room D
- 9:00 a.m. House of Delegates, Top of the Sheraton
- 9:00 a.m. Miss. Association of Pathologists, Scientific Meeting, Biloxi Room
- 12:00 noon Miss. Orthopaedic Society Luncheon, Gulf Room D
- 12:00 noon Miss. Urological Society Luncheon, Boston Room
- 1:30 p.m. Reference Committee on Reports of Officers and Board of Trustees, Gulf Rooms A and B
- 1:30 p.m. Reference Committee on Miscellaneous Business, Gulf Room C
- 1:30 p.m. Woman's Auxiliary Finance Committee Meeting, Jackson Room
- 3:00 p.m. Reference Committee on Medical Practices, Gulf Room D
- 3:30 p.m. Council on Constitution and By-Laws, Gulf Room C
- 3:30 p.m. Woman's Auxiliary Pre-convention Board Meeting, Jackson Room
- 4:00 p.m. Ole Miss Medical Alumni Business Meeting, Boston Room
- 7:00 p.m. Ole Miss Medical Alumni Cocktail Party, Top of the Sheraton
- 8:00 p.m. Ole Miss Medical Alumni Seafood Jamboree and Dance, Top of the Sheraton

TUESDAY, MAY 1, 1973

- 8:15 a.m. V.A. Center films, Boston Room
- 8:30 a.m. Woman's Auxiliary Continental Breakfast, Gulf Rooms C and D

- 9:00 a.m. General Scientific Session, Grand Ballroom
- 9:30 a.m. Woman's Auxiliary General Session, Gulf Rooms C and D
- 12:00 noon American College of Surgeons Luncheon, Gulf Rooms A and B
- 12:00 noon Fifty Year Club Luncheon, Boston Room
- 1:00 p.m. Woman's Auxiliary Luncheon, Top of the Sheraton
- 2:00 p.m. American College of Surgeons Scientific Program (to be followed by business meeting and case reports), Gulf Rooms C and D
- 2:00 p.m. General Scientific Session, Grand Ballroom
- 2:00 p.m. V.A. Center films, Boston Room
- 3:30 p.m. Woman's Auxiliary Film Presentation, Gulf Room B
- 3:30 p.m. Woman's Auxiliary Postconvention Board of Directors Meeting, Jackson Room
- 5:00 p.m. Short Course in Practical Tonometry (Glaucoma) for Non-Ophthalmologists, Gulf Room C
- 5:30 p.m. Vanderbilt Medical Alumni Cocktail Party, Jackson Room
- 6:00 p.m. Tulane Medical Alumni Cocktail Party, Biloxi Room
- 6:00 p.m. Tennessee Medical Alumni Cocktail Party and Dinner, Gulf Rooms C and D
- 7:00 p.m. Flying Physicians Association, Boston Room

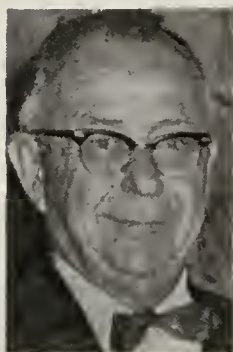
WEDNESDAY, MAY 2, 1973

- 7:30 a.m. MSMA Past President's Breakfast, Boston Room
- 8:30 a.m. Woman's Auxiliary Past Presidents' Breakfast, Jackson Room
- 9:00 a.m. General Scientific Session, Grand Ballroom
- 9:30 a.m. V.A. Center films, Boston Room
- 10:00 a.m. Woman's Auxiliary Film Presentation, Gulf Room B
- 10:30 a.m. General Scientific Session, Grand Ballroom
- 11:30 a.m. Miss. Ob-Gyn Society Cocktail Party and Luncheon, Gulf Room C
- 12:00 noon Miss. Academy of Family Physicians Luncheon, Top of the Sheraton
- 12:00 noon Miss. Neurosurgical Society Luncheon, Gulf Room D
- 12:15 p.m. Miss. Society of Internal Medicine Luncheon, Gulf Room B
- 1:30 p.m. Nominating Committee, Gulf Room A
- 2:00 p.m. General Scientific Session, Grand Ballroom
- 2:00 p.m. V.A. Center films, Boston Room
- 3:30 p.m. General Scientific Session, Grand Ballroom
- 4:30 p.m. Short Course in Practical Tonometry (Glaucoma) for Non-Ophthalmologists, Gulf Room C
- 6:00 p.m. Annual Association Cocktail Party, Gulf Rooms B, C, and D

THURSDAY, MAY 3, 1973

- 9:00 a.m. General Scientific Session, Grand Ballroom
- 12:00 noon Miss. EENT Association Luncheon, Gulf Room B
- 1:30 p.m. House of Delegates, Top of the Sheraton
- 2:00 p.m. Hospitality Room for Ladies and Children

EXECUTIVE BUSINESS



DR. HOWELL

HOUSE OF DELEGATES

April 30, 1973
9:00 a.m.

Sheraton-Biloxi

John B. Howell, Jr.
Canton, Speaker

Walter H. Simmons
Jackson, Vice Speaker



DR. SIMMONS

MEETINGS OF THE HOUSE OF DELEGATES

The opening meeting of the House will be called to order by the President, and the Speakers will announce the order of business. An open meeting, to which all members and ladies of the Auxiliary are invited, will feature addresses by Dr. Charles R. Jenkins, the president, and Dr. C. A. Hoffman, president of the American Medical Association. The adjourned meeting of the House will convene at 1:30 p.m. on May 3.

REFERENCE COMMITTEES

Reports of Officers and Board of Trustees, April 30, Gulf Rooms A and B, 1:30 p.m.
Miscellaneous Business, April 30, Gulf Room C, 1:30 p.m.
Medical Practices, April 30, Gulf Room D, 3:00 p.m.
Constitution and By-Laws, April 30, Gulf Room C, 3:30 p.m.
Nominating Committee, May 2, Gulf Room A, 1:30 p.m.

THE SCIENTIFIC ASSEMBLY

COUNCIL ON SCIENTIFIC ASSEMBLY
RAYMOND S. MARTIN, JR., Chairman



DR. MARTIN

THE COUNCIL

L. STACY DAVIDSON, JR., Chairman, EENT
JAMES K. WILLIAMS, JR., Secretary
FRANK W. BOWEN, Chairman, GENERAL PRACTICE
W. BOYCE WHITE, Secretary
WILLIAM L. WOOD, JR., Chairman, MEDICINE
S. H. McDONNIEAL, JR., Secretary
CHARLES M. HEAD, Chairman, OB-GYN
CHARLTON R. VINCENT, Secretary
JOHN R. JACKSON, JR., Chairman, PEDIATRICS
FRANK M. WIYGUL, JR., Secretary
SHELBY W. MITCHELL, Chairman, PREVENTIVE MEDICINE
STEVEN L. MOORE, Secretary
WILLIAM BRIGGS HOPSON, JR., Chairman, Surgery
BENTON M. HILBUN, Secretary

MEDICAL TELEVISION

The Veterans Administration Hospital in Jackson will present a scientific television program on May 1 and 2 in the Boston Room.

SCIENTIFIC AND TECHNICAL EXHIBITS

Grand Ballroom, Sheraton-Biloxi

CONDUCT OF THE SCIENTIFIC ASSEMBLY

The order of exercise, papers, and discussion as set forth in the official program shall be followed until completion. All papers read before the association shall become its property. Each paper must be read by its author and deposited with the Secretary (or Chairman) when read.

THE SCIENTIFIC EXHIBIT

Physicians, foundations, organizations, and major medical institutions will present the Scientific Exhibit. Physician-members of the Mississippi State Medical Association are eligible for the Aesculapius Award given for excellence of presentation, quality of content, and originality. Others may not participate in this competition, but they are eligible for the association's Scientific Achievement Award, a sculptured bronze medallion, in recognition of the best presentation by a nonmember. The Scientific Exhibit is located in the Grand Ballroom.

EXHIBITS AND AUTHORS

- "Surgery for the Prevention and Treatment of Stroke"
Hector S. Howard, H. Edward Garrett, J. T. Davis, Jr., and Charles V. Stewart, Memphis
- "Intravenous Nutrition"
Richard C. Miller and Patricia Moynihan, Division of Pediatric Surgery, University Medical Center, Jackson
- "Kidney Transplantation and Procurement Program for the State of Mississippi"
George V. Smith, Department of Surgery, University Medical Center, Jackson
- "Parapharyngeal Tumors"
Division of Otolaryngology, University Medical Center, Jackson
- "Nasopharyngeal Angiofibromas"
Division of Otolaryngology, University Medical Center, Jackson
- "Serous Otitis Media"
The Ear, Nose and Throat Surgical Group, P.A., Jackson
- "Coronary Artery Bypass Updated"
Noel L. Mills and John L. Ochsner, New Orleans
- "Charnley Total Hip Replacement"
John G. Caden and Clyde X. Copeland, Jr., Jackson
- "The Delto Pectoral Flap"
William E. Noblin, III, Jackson
- "University of Alabama Maxillofacial Prosthetics Treatment and Training Center"
Iradj Sooudi, Birmingham
- "Management of Elevated Bilirubins in Newborns"
Alfred W. Brann, Jr., and John E. Rawson, Department of Pediatrics, University Medical Center, Jackson
- "Radiological Aspects of Mitral Valve Disease"
John Y. Gibson, Department of Radiology, and Kenneth R. Bennett, Department of Medicine, University Medical Center, Jackson
- "Blindness Prevention Activities"
Mississippi Society for Prevention of Blindness

"Dyslexia and Learning Disabilities"

Mississippi Society for Prevention of Blindness and Mississippi EENT Association

"Diagnosis and Treatment of Nerve Injuries to the Hand"

Michael E. Jabaley, Division of Plastic Surgery, University Medical Center, Jackson (Prepared by American Society for Surgery of the Hand)

"American Cancer Society, Mississippi Division, Inc."

"Nurse-Midwifery in Mississippi"

Nurse-Midwifery Programs of the University Medical Center, Jackson

"Flying Physicians Association, Mississippi Chapter"

"Alcoholism Is Your Business"

Alcohol Abuse and Alcoholism Program of Mississippi State Board of Health

"Surgery for the Heart Attack"

Akio Suzuki and James D. Hardy, Department of Surgery, University Medical Center, Jackson

"Care of Infants with Congenital Heart Disease"

Robert L. Abney, III, Jackson

"Blood-sucking Leeches of East and Southeast Asia"

Hugh L. Keegan, Department of Preventive Medicine, University Medical Center, Jackson

V.A. SCIENTIFIC TELEVISION PROGRAM

Tuesday, May 1, 1973, Boston Room

8:15 a.m. Carcinoma of the Ampulla of Vater

8:30 a.m. Bowel Resection for Carcinoid of Ileum

8:45 a.m. Transvenous Inferior Vena Cava Partial Interruption

2:00 p.m. Rupture of the Bronchus

2:15 p.m. Carotid-Subclavian Bypass

Wednesday, May 2, 1973, Boston Room

9:30 a.m. Axillo-Femoral Bypass

9:50 a.m. Aorto-Coronary Bypass

2:00 p.m. Surgical Treatment of Emphysema

2:15 p.m. Resection of Thoracic Aneurysm

OLE MISS MEDICAL ALUMNI

University of Mississippi Medical Alumni, their ladies, and guests will meet on Monday, April 30, at the Sheraton-Biloxi. Alumni registration will be located adjacent to general registration in the second level lobby and will be open at 10:00 a.m. where tickets for the evening party will be available. A general business meeting will be conducted at 4:00 p.m. in the Boston Room (main lobby arcade). The cocktail party will be held in the Top of the Sheraton beginning at 7:00 p.m. and followed at 8:00 p.m. by the Seafood Jamboree dinner-dance. Dr. David Clippinger of Gulfport is program planning committee chairman. Further details and tickets may be purchased from Mr. Charles William Price, medical alumni secretary, the Ole Miss Medical Alumni House, UMC campus, 2500 North State Street, Jackson 39216.

105TH ANNUAL SESSION

THE TECHNICAL EXHIBIT

The Mississippi State Medical Association presents with pride the 1973 Technical Exhibit. Established firms engaged in the manufacture and distribution of pharmaceuticals, supplies, equipment, and in providing varied services, will present exhibits. Visit each exhibit often and discuss products and services with the Professional Service Representatives. Only registered members and guests are admitted. The Technical Exhibit is located in the Grand Ballroom.

EXHIBITORS	BOOTH
Automated Medical Laboratories, Inc., Miami Beach, Fla.	28
Ayerst Laboratories, New York, N. Y.	33, 34
Bankers Trust Savings and Loan Association, Jackson, Miss.	29
Bristol Laboratories, Syracuse, N. Y.	13
Ciba Pharmaceutical Company, Summit, N. J.	21
Coca-Cola USA, Atlanta, Ga.	39
Cooper Labs, Inc., New York, N. Y.	12
Dome Labs, West Haven, Conn.	6
Econocopy, Jackson, Miss.	38
Financial Service Corporation, Brookhaven, Miss.	20
General Medical/Jackson, Jackson, Miss.	23
Ives Laboratories, Inc., New York, N. Y.	37
Lanier Business Products, Jackson, Miss.	26
McNees Medical Supply Company, Jackson, Miss.	2
Mead Johnson Laboratories, Evansville, Ind.	32
Medical and Corporate Financial, Inc., Jackson, Miss.	16
Merrill Lynch, Pierce, Fenner and Smith, Inc., Jackson, Miss.	31
Meyer Laboratories, Inc., Fort Lauderdale, Fla.	40
Mississippi Hospital and Medical Service, Jackson, Miss.	7
Paine, Webber, Jackson and Curtis, Inc., Jackson, Miss.	41
Pfizer Laboratories, Doraville, Ga.	35
Professional Planning Associates, Jackson, Miss.	22
A. H. Robins Company, Richmond, Va.	19
Sandoz Pharmaceuticals, E. Hanover, N. J.	27
Schering Laboratories, Kenilworth, N. J.	36
E. R. Squibb & Sons, Princeton, N. J.	9
Stuart Pharmaceuticals, Div. ICI America, Wilmington, Del.	14
The St. Paul Companies, St. Paul, Minn.	3
The Upjohn Company, Memphis, Tenn.	42
Weight Watchers, Jackson, Miss.	11
Winthrop Laboratories, New York, N. Y.	25
Wright Manufacturing Company, Memphis, Tenn.	8

SCIENTIFIC GRANTS

A. H. Robins Company, Richmond, Va.
Eli Lilly and Company, Indianapolis, Ind.
Geigy Pharmaceuticals, Ardsley, N. Y.
G. D. Searle, Chicago, Ill.
Merck Sharp and Dohme Postgraduate Program, West Point, Pa.
William P. Poythress and Co., Inc., Richmond, Va.
Roff Laboratories

REGISTRATION FOR EXHIBIT PRIZES

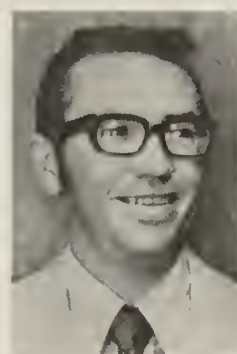
Visit the Technical Exhibits often and qualify for the drawing of attractive prizes. Obtain necessary initials as you visit each booth. Deposit cards at Registration not later than 12:30 p.m., Thursday, May 3.

SCIENTIFIC PROGRAM

Tuesday, May 1, 1973
Grand Ballroom
Beginning at 9:00 a.m.

W. Briggs Hopson, Jr., Vicksburg
Chairman

Benton M. Hilbun, Tupelo
Secretary



DR. HOPSON

TOTAL HIP ARTHROPLASTY, INDICATIONS AND RESULTS
George D. Purvis, Jackson

ACUTE RESPIRATORY FAILURE IN THE SURGICAL PATIENT
Joseph C. Gabel, Jackson

TECHNIQUE AND RESULTS OF CORONARY ARTERY BYPASS
Denton A. Cooley, Houston, Tex.

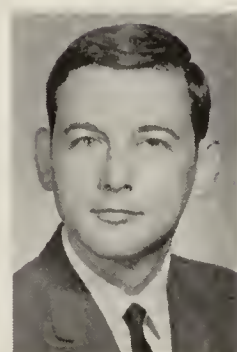
INDICATIONS AND TECHNIQUE OF HIATAL HERNIAL REPAIR
Hiram C. Polk, Louisville, Ky.

SCIENTIFIC PROGRAM

Tuesday, May 1, 1973
Grand Ballroom
Beginning at 2:00 p.m.

John R. Jackson, Jr., Hattiesburg
Chairman

Frank M. Wiygul, Jr., Jackson
Secretary



DR. JACKSON

INNOVATIONS IN MANAGEMENT OF RESPIRATORY DISTRESS
SYNDROME
Alfred W. Brann, Jr., Jackson

CURRENT PUBLIC HEALTH IMMUNIZATION PROGRAM
Durward L. Blakey, Jackson

ETIOLOGY AND TREATMENT OF OTITIS MEDIA IN PEDIATRIC
PRACTICE
Virgil M. Howie, Huntsville, Ala.

105TH ANNUAL SESSION

SCIENTIFIC PROGRAM

Wednesday, May 2, 1973
Grand Ballroom
Beginning at 9:00 a.m.

Charles M. Head, Jackson
Chairman

Charlton R. Vincent, Laurel
Secretary



DR. HEAD

THE RH PROBLEM

John Queenan, Louisville, Ky.

DIABETES IN PREGNANCY

John Queenan, Louisville, Ky.

ABNORMAL UTERINE BLEEDING

Herbert H. Thomas, Birmingham, Ala.

SCIENTIFIC PROGRAM

Wednesday, May 2, 1973
Grand Ballroom
Beginning at 10:30 a.m.

William L. Wood, Jr., Tupelo
Chairman

S. H. McDonnical, Jr., Jackson
Secretary



DR. WOOD

CHANGING CONCEPTS OF CORONARY ARTERY DISEASE

Quentin Dickerson, Jackson

PROBLEMS OF ANTIMICROBIAL THERAPY IN HOSPITAL AND OFFICE PRACTICE

W. Anderson Spickard, Jr., Nashville, Tenn.

A REVIEW OF ADVANCES IN THE EVALUATION AND MANAGEMENT OF HYPERTENSION

Walter M. Kirkendall, Houston, Tex.

SCIENTIFIC PROGRAM

Wednesday, May 2, 1973
Grand Ballroom
Beginning at 2:00 p.m.

Frank W. Bowen, Carthage
Chairman

W. Boyce White, Laurel
Secretary



DR. BOWEN

HOW RADICAL SHOULD SURGERY BE FOR EARLY CARCINOMA OF THE
BREAST?

James P. Spell, Jackson

THE ELECTROCARDIOGRAM IN CORONARY ARTERY DISEASE

H. Davis Dear, Jr., Jackson

PROFILES OF ADOLESCENTS ADMITTED TO MISSISSIPPI STATE HOS-
PITAL IN 1972 FOR DRUG PROBLEMS

Jerry M. Ross, Whitfield

SCIENTIFIC PROGRAM

Wednesday, May 2, 1973
Grand Ballroom
Beginning at 3:30 p.m.

Shelby W. Mitchell, Jackson
Chairman

Steven L. Moore, Jackson
Secretary



DR. MITCHELL

PARTNERS IN PROGRESS—THE PRIVATE PRACTITIONER AND THE
PUBLIC HEALTH PROGRAM

Paul B. Brumby, Lexington

PREVENTIVE MEDICINE—YESTERDAY, TODAY AND TOMORROW

Durward L. Blakey, Jackson

105TH ANNUAL SESSION

SCIENTIFIC PROGRAM

Thursday, May 3, 1973

Grand Ballroom

Beginning at 9:00 a.m.

L. Stacy Davidson, Jr., Cleveland
Chairman

James K. Williams, Jr., Pascagoula
Secretary



DR. DAVIDSON

OPTIC NERVE DISEASE

Donald L. Hall, Houston, Tex.

CLINICAL MANAGEMENT OF NECK MASSES

Myron W. Lockey, Jackson

VASCULAR DISEASES OF THE RETINA

Donald L. Hall, Houston, Tex.

ACUTE LARYNGOTRACHEAL TRAUMA

Myron W. Lockey, Jackson

TULANE MEDICAL ALUMNI

Medical graduates of the Tulane University will be feted at an informal cocktail party on Tuesday evening, May 1, 1973, in the Biloxi Room at 6:00 p.m. Mrs. Dorothy Kimbell, administrative assistant, is aiding in arrangements.

TENNESSEE MEDICAL ALUMNI

Medical alumni of the University of Tennessee will enjoy cocktails and dinner on Tuesday evening, May 1, in Gulf Rooms C and D at 6:00 p.m. Dr. Dennis Ward of Corinth is the president of the Mississippi chapter and arrangements are being made by Mr. June Montgomery, UT director of alumni affairs.

VANDERBILT MEDICAL ALUMNI

Vanderbilt medical alumni will gather in the Jackson Room at 5:30 p.m. on May 1 for a cocktail reception. Mr. Ron Munkeboe, Director of Medical Alumni and Development, will be host.

VISITING ESSAYISTS

DENTON A. COOLEY, M.D., Houston, Tex. Surgeon-in-Chief, Texas Heart Institute; Consultant in Cardiovascular Surgery, St. Luke's Episcopal-Texas Children's Hospital, Houston. Medical education, Johns Hopkins University School of Medicine, 1944. Diplomate, American Board of Surgery. Board of Thoracic Surgery.



DR. COOLEY



DR. HALL

DONALD L. HALL, M.D., Houston, Tex. Clinical instructor at the University of Texas Medical School at Houston; private practice of ophthalmology. Medical education, University of Mississippi School of Medicine, 1965.



DR. HOFFMAN

C. A. HOFFMAN, M.D., Huntington, W. Va. President, American Medical Association. Private practice of urology and consultant in urology to the Veterans Administration Hospital, Huntington. Medical education, University of Cincinnati, 1935. Diplomate, American Board of Urology.



DR. HOWIE

VIRGIL M. HOWIE, M.D., Huntsville, Ala. Private practice of pediatrics. Medical education, Vanderbilt University School of Medicine, 1952. Diplomate, American Board of Pediatrics.

105TH ANNUAL SESSION

WALTER M. KIRKENDALL, M.D., Houston, Tex. Professor and director, Program in Internal Medicine, University of Texas Medical School of Houston and director of Medical Service, Hermann Hospital. Medical education, University of Louisville College of Medicine, 1941. Diplomate, American Board of Internal Medicine.



DR. KIRKENDALL



DR. LETTON

A. HAMBLIN LETTON, M.D., Atlanta, Ga. Chief of Staff and Active Attending Surgeon, Georgia Baptist Hospital. Medical education, Emory University School of Medicine, 1941. Diplomate, American Board of Surgery.

HIRAM C. POLK, JR., M.D., Louisville, Ky. Professor and chairman, Department of Surgery, University of Louisville School of Medicine; Chief of surgery, Louisville General Hospital. Medical education, Harvard University, 1960. Diplomate, American Board of Surgery.



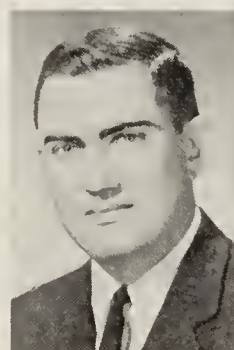
DR. POLK



DR. QUEENAN

JOHN T. QUEENAN, M.D., Louisville, Ky. Chairman of Department of Obstetrics and Gynecology, University of Louisville School of Medicine. Medical education, Cornell University Medical College, 1958. Diplomate, American Board of Obstetrics and Gynecology.

W. ANDERSON SPICKARD, JR., M.D., Nashville, Tenn. Medical director, Vanderbilt University Clinic, and private practice of medicine. Medical education, Vanderbilt University School of Medicine, 1957. Diplomate, American Board of Internal Medicine.



DR. SPICKARD



DR. THOMAS

HERBERT H. THOMAS, M.D., Birmingham, Ala. Assistant professor of gynecology at the University of Alabama School of Medicine and private practice in gynecology and infertility. Medical education, Tulane University School of Medicine, 1938. Diplomate, American Board of Obstetrics and Gynecology.

105TH ANNUAL SESSION

WOMAN'S AUXILIARY TO THE MISSISSIPPI STATE MEDICAL ASSOCIATION

50th Annual Session
The Sheraton-Biloxi
April 30-May 1, 1973



MRS. WEBB

OFFICERS

MRS. CLARENCE H. WEBB, JR.
Jackson, President

MRS. W. H. PRESTON, JR.
Booneville, President-elect

MRS. BAKER G. NAGLE
Columbus, Secretary

MRS. HENRY H. WEBB
Jackson, Treasurer



MRS. PRESTON

ANNUAL SESSION CHAIRMEN

Mrs. Louis A. Farber
Jackson
General Chairman

Mrs. Paul H. Moore
Pascagoula
Registration

Mrs. T. A. Baines
Jackson
Hospitality

Mrs. William E. Bowlus
Jackson
Luncheon

AUXILIARY

Monday, April 30, 1973

1:30 p.m. Finance Committee Meeting, Jackson Room

3:00 p.m. Registration

3:30 p.m. Preconvention Executive Board Meeting, Jackson Room

Tuesday, May 1, 1973

8:30 a.m. Continental Breakfast, Gulf Rooms C and D

8:30 a.m. Registration

9:30 a.m. General Session, Gulf Rooms C and D

Invocation

Welcome

Response

Introductions

Greetings

C. R. Jenkins, M.D., Laurel

President, MSMA

Arthur Derrick, M.D., Durant

President-elect, MSMA

Mrs. Erle E. Wilkinson, Nashville, Tenn.

Director, Woman's Auxiliary to AMA

Southern Medical Auxiliary President

Memorial Service

Mrs. Jack A. Stokes, Pontotoc

Minutes

Roll Call—Reports

Business

President's Report

Nominating Committee Report

Election of Officers

Courtesy Resolutions

Adjournment

1:00 p.m. Luncheon, Top of the Sheraton

Invocation

Introduction of Guests

Guest Speaker

Mrs. Erle E. Wilkinson

Installation of Officers

Mrs. Erle E. Wilkinson

AMA-ERF Awards

3:30 p.m. Postconvention Meeting for Directors and Unit
Presidents, Jackson Room

3:30 p.m. Special Film Presentation, Gulf Room B

Wednesday, May 2, 1973

8:30 a.m. Past President's Breakfast, Jackson Room

10:00 a.m. Special Film Presentation, Gulf Room B

SEMINAR ON FAMILY PLANNING METHODOLOGY

The Sheraton-Biloxi, Gulf Room D
April 29, 1973, beginning at 9:00 a.m.

FACULTY

George R. Huggins, M.D., assistant professor, Department of Obstetrics and Gynecology, The University of Pennsylvania Medical School, Philadelphia, Penn.

Calvin T. Hull, M.D., assistant professor, Department of Obstetrics and Gynecology, The University of Mississippi School of Medicine, Jackson, Miss.

Donald M. Sherline, M.D., associate professor and director of the Division of Obstetrics, The University of Mississippi School of Medicine, Jackson, Miss.

SYNOPSIS OF COURSE

This one day seminar will cover such topics as oral contraceptives, intrauterine contraceptive devices, techniques of abortion and laparoscopy with a laparoscopy laboratory.

CREDIT

Six hours of credit have been approved by the American Academy of Family Physicians.

MISSISSIPPI SOCIETY OF ANESTHESIOLOGISTS

The Mississippi Society of Anesthesiologists will meet at the Country Club of Jackson (Jackson, Miss.) on Sunday evening, April 29, at 6:00 p.m. Guest speaker will be Dr. Jerome H. Modell, Professor and Chairman, Department of Anesthesiology, School of Medicine, University of Florida at Gainesville. Dr. Modell will discuss the pathophysiology and treatment of drowning. Society officers are Dr. Thomas Marland of Jackson, president-elect; Dr. Robert L. Thompson of Pascagoula, president; and Dr. Carlos S. Patino of Jackson, secretary-treasurer.

MISSISSIPPI RADIOLOGICAL SOCIETY

The Mississippi Radiological Society will present a scientific session on Sunday, April 29, in the Boston Room of the Sheraton-Biloxi. Dr. William J. Bean, East Jefferson Hospital, New Orleans, will speak on "Non-operative Removal of Residual Bilateral Stones Through the T Tube." At 3:00 p.m. the society will host a cocktail party in the Boston Room. Dr. J. V. Ferguson of Greenwood is president; Dr. Paul Moore of Pascagoula is president-elect; and Dr. Nancy Burrow of Brandon is secretary.

MISSISSIPPI ASSOCIATION OF PATHOLOGISTS

The Sheraton-Biloxi

April 29-30, 1973

WILLIAM D. ATCHISON, Gulfport, President

ROLAND F. SAMSON, Jackson, Secretary

Sunday, April 29, 1973

2:00 p.m. Business Meeting, Biloxi Room

Monday, April 30, 1973

9:00 a.m. Scientific Session, Biloxi Room

12:00 noon Adjournment

MISSISSIPPI ORTHOPAEDIC SOCIETY

The Mississippi Orthopaedic Society will hold a luncheon and program at 12:00 noon on Monday, April 30, in Gulf Room D at the Sheraton-Biloxi. Officers are Dr. Magruder S. Corban of Gulfport, president and meeting chairman; Dr. William Sanders of Columbus, president-elect; and Clyde Copeland, Jr., of Jackson, secretary-treasurer.

MISSISSIPPI UROLOGICAL SOCIETY

Members of the Mississippi Urological Society will meet Monday, April 30, in the Boston Room of the Sheraton-Biloxi for a luncheon meeting at 12:00 noon. Society officers are Dr. M. E. Hinman of Vicksburg, president and meeting chairman; W. L. Weems of Jackson, president-elect; and W. H. Merrell of Jackson, secretary.

REFERENCE COMMITTEE BREAKFAST

Members of all reference committees of the House of Delegates will meet for breakfast on Monday morning, April 30, in Gulf Room D at 7:00 a.m. Hosts are Drs. John B. Howell, Jr., of Canton, speaker, and Walter H. Simmons of Jackson, vice speaker. At this important meeting, committee members will be instructed in their duties and conduct of hearings later in the day.

AMERICAN COLLEGE OF SURGEONS, MISSISSIPPI CHAPTER

The Sheraton-Biloxi

Tuesday, May 1, 1973

RAYMOND S. MARTIN, JR., Jackson, President

RICHARD H. CLARK, JR., Hattiesburg, Secretary

12:00 noon Luncheon Meeting, Gulf Rooms A and B

"Current Concepts of Cancer Control"

A. Hamblin Letton, Atlanta, Ga.

2:00 p.m. Scientific Session, Gulf Rooms C and D

"Vascular Procedures in Surgery"

Denton A. Cooley, Houston, Tex.

"Blunt Trauma to the Abdomen"

Hiram C. Polk, Jr., Louisville, Ky.

105TH ANNUAL SESSION

3:00 p.m. Business Meeting

Case Reports

(1) "Dissection of Thoracic Aorta with Associated Mesenteric Hemorrhage Due to Trauma"

Henry Tyler, Jackson

(2) "Complete Transection of Common Bile Duct Due to Blunt Trauma"

William H. Turney, University Medical Center, Jackson

(3) "Blunt Traumatic Rupture of Diaphragm"

Ray L. Wesson, Biloxi

(4) "Isotope and Arteriographic Evaluation of Blunt Abdominal Trauma"

Ottis G. Ball and Clifton L. Hester, Jackson

Panel Discussion:

Hiram C. Polk, Jr.

Denton A. Cooley

A. Hamblin Letton

Richard J. Field, Jr.

Ottis G. Ball

A SHORT COURSE IN PRACTICAL TONOMETRY (GLAUCOMA) FOR NON-OPHTHALMOLOGISTS

The Mississippi EENT Association and the Mississippi Society for the Prevention of Blindness will conduct a training course in indications and mechanics of tonometry including demonstrations and actual participation. The course will be offered at 5:00 p.m. in Gulf Room A Tuesday, May 1 and 4:30 p.m. in Gulf Room C Wednesday, May 2.

FIFTY YEAR CLUB

The Board of Trustees, sponsors of the association's Fifty Year Club, will honor the half-century plus members at a special luncheon on Tuesday, May 1, in the Boston Room at 12:00 noon. Dr. J. T. Davis of Corinth, chairman of the Board of Trustees, will preside. Mrs. Barbara Shelton, MSMA membership director, is club secretary.

FLYING PHYSICIANS ASSOCIATION, MISSISSIPPI CHAPTER

The Mississippi chapter of the Flying Physicians Association, Inc., will give a cocktail party and dinner at the Sheraton-Biloxi in the Boston Room on Tuesday evening, May 1, beginning at 7:00 p.m. A special feature will be films shown by a representative of Burns Aircraft Company. A business meeting will also be held. All FPA members and physicians interested in aviation are invited to attend. Dr. Jack A. Stokes of Pontotoc is in charge of arrangements.

MISSISSIPPI FOUNDATION FOR MEDICAL CARE

The Mississippi Foundation for Medical Care will hold its annual meeting on Thursday afternoon, May 3, at the Sheraton Biloxi. All participating and administrative members are urged to attend.

MISSISSIPPI OB-GYN SOCIETY

The Mississippi Ob-Gyn Society will conduct a cocktail party and luncheon on Wednesday, May 2, in Gulf Room C beginning at 11:30 a.m. Officers of the society are Dr. Walter L. Bourland of Tupelo, president; Dr. George Ball of Jackson, president-elect and Dr. Calvin T. Hull of Jackson, secretary-treasurer. Dr. Charles M. Head of Jackson is meeting chairman.

MSMA PAST PRESIDENTS' BREAKFAST

Past presidents of the Mississippi State Medical Association will enjoy a breakfast meeting on Wednesday morning, May 2, in the Boston Room at 7:30 a.m. Dr. Arthur E. Brown of Columbus is host.

AUXILIARY PAST PRESIDENTS' BREAKFAST

Past presidents of the Woman's Auxiliary to the Mississippi State Medical Association will enjoy a breakfast meeting on Wednesday morning, May 2, in the Jackson Room at 8:30 a.m. Mrs. T. E. Ross, III, of Hattiesburg is hostess.

MISSISSIPPI SOCIETY OF INTERNAL MEDICINE

A luncheon meeting of the Mississippi Society of Internal Medicine will be conducted on Wednesday, May 2, in Gulf Room B at 12:15 p.m. There will be a brief business session. Officers of the society are Dr. J. R. Shell of Vicksburg, president and meeting chairman; Dr. David Owen of Hattiesburg is president-elect; and Dr. S. H. McDonnical, Jr., of Jackson is secretary.

MISSISSIPPI ACADEMY OF FAMILY PHYSICIANS

The Mississippi Academy of Family Physicians will sponsor a luncheon meeting at 12:00 noon on Wednesday, May 2, in the Top of the Sheraton. Dr. W. R. Gillis of the Dalhousie University Division of Continuing Medical Education, Halifax, Nova Scotia, will speak on "Development of a Family Practice Department." Officers of the Mississippi academy are Dr. Eugene Webb of Itta Bena, president; Dr. W. B. Hunt of Grenada, president-elect; Dr. Thomas J. Anderson of Laurel, vice president; and Dr. Herbert H. Hicks of Natchez, secretary.

GOLF TOURNAMENT

The annual association golf tournament will be conducted at the Sunkist Country Club on Wednesday, May 2. Dr. Arthur V. Hays of Gulfport is chairman. The entrance fee of \$10.00 will cover green fees and should be made payable to Pro Frank Stiedle. More information may be obtained from Dr. Hays, 13th and 31st Ave., Gulfport 39501 or at MSMA registration.

105TH ANNUAL SESSION

ASSOCIATION PARTY

Members of the Mississippi State Medical Association, their ladies and guests will enjoy a cocktail party on Wednesday evening, May 2, in Gulf Room B, C, and D at 6:00 p.m. There is no dinner or program, just good fellowship. Tickets will be available at general registration.

MISSISSIPPI NEUROSURGICAL SOCIETY

The Mississippi Neurosurgical Society will hold a luncheon program on Wednesday, May 2, at 12:00 noon in Gulf Room D. Officers of the society are Drs. Charles Neill of Jackson, president; O. J. Andy of Jackson, vice president; Lucien Hodges of Jackson, secretary; and Robert R. Smith of Jackson, meeting chairman.

MISSISSIPPI EENT ASSOCIATION

The Mississippi Eye, Ear, Nose and Throat Association will conduct a luncheon meeting on Thursday, May 3, in Gulf Room B at 12:00 noon. Officers of the association are Drs. John E. Green of Hattiesburg, president; Myron W. Lockey of Jackson, president-elect; and Ben McCarty of Jackson, secretary and meeting chairman.

LOUISIANA-MISSISSIPPI OPHTHALMOLOGICAL AND OTOLARYNGOLOGICAL SOCIETY

The Sheraton-Biloxi Hotel, Biloxi
May 3-5, 1973

RALPH SNEED, Jackson, President
J. W. McLAURIN, Baton Rouge, President-elect
ARTHUR V. HAYS, Gulfport, Secretary

Thursday, May 3, 1973

9:00 a.m. Section on Eye, Ear, Nose, and Throat
Mississippi State Medical Association
Grand Ballroom, Sheraton-Biloxi

Friday and Saturday, May 4 and 5, 1973

OPHTHALMOLOGY

Eugene M. Helveston, Indianapolis, Ind.
David Paton, Houston, Tex.

OTOLARYNGOLOGY

Charles W. Gross, Memphis, Tenn.
Medney E. Tardy, Jr., Elmhurst, Ill.

Handbook of the House of Delegates

Mississippi State Medical Association
105th Annual Session, Biloxi
April 30-May 3, 1973

SUPPLEMENTAL REPORT A OF THE SECRETARY-TREASURER

Vacancies in Elected Offices. Effective May 3, 1973, there will occur 24 vacancies in elected offices in the association by reason of expiration of prescribed terms of service. In accordance with the By-Laws, the Nominating Committee will be asked to deliberate, consult with colleagues, and make nominations to the House of Delegates for consideration and voting to elect successors or to re-elect incumbents.

Eligibility. To be nominated for office in the association, a nominee must have been a member for two years, be in present good standing as a member, and must have attended two of the past three annual sessions. The present annual session may be counted as one of these two. A member may not serve more than three consecutive terms as a member of the Board of Trustees.

Vacancies for Nomination. Following is the listing of vacancies which will occur during the 105th Annual Session as well as requirements for nominations and identity of incumbents:

President-elect

Nominate three, no two of whom may be from the same county, elect one.

Secretary-Treasurer

Term 1973-76. Nominate three, elect one. Incumbent: Raymond S. Martin, Jr., Jackson.

Vice Presidents

Nominate three for the Northern Area, three for the Mid-State Area, and three for the Southern Area. Elect one for each area.

Delegate to AMA

Term Jan. 1, 1974-Dec. 31, 1975. Nominate two, elect one. Incumbent: G. Swink Hicks, Natchez.

HANDBOOK INFORMATION

The Speaker and Vice Speaker of the House of Delegates herewith present for the information of all members those reports and resolutions as have been received for publication in advance of the 105th Annual Session. It is the intent of this advance publication to inform the membership and to afford all concerned the opportunity to confer with delegates over any aspect of the reports and resolutions.

No report or resolution herein becomes official or a statement of policy until formally presented to the House of Delegates and acted upon at the annual session.

JOHN B. HOWELL, JR.
SPEAKER

WALTER H. SIMMONS
VICE SPEAKER

Alternate Delegate to AMA

Term Jan. 1, 1974-Dec. 31, 1975. Nominate two, elect one. Incumbent: Stanley A. Hill, Corinth.

Associate Editor

Term 1973-75. Nominate two, elect one. Incumbent: Thomas W. Wesson, Tupelo.

Board of Trustees, Districts 1, 2, and 3

Terms 1973-76. Nominate two for each district, elect one for each district. Incumbents: Lyne S. Gamble, Greenville, District 1; James O. Gilmore, Oxford, District 2; and J. T. Davis, Corinth, District 3, who is not eligible for re-election.

Council on Budget and Finance

Terms 1973-76. Nominate two for each post, elect one for each post, two vacancies. Incumbents: Daniel L. Hollis, Biloxi; and Walter H. Rose, Indianola.

HOUSE OF DELEGATES / Continued

Council on Constitution and By-Laws

Term 1973-76. Nominate two, elect one. Incumbent: Arthur E. Brown, Columbus.

Judicial Council, Districts 7, 8, and 9

Terms 1973-76. Nominate two for each district, elect one for each district. Incumbents: William E. Weems, Laurel, District 7; Wendall B. Holmes, McComb, District 8; and James T. Thompson, Moss Point, District 9.

Council on Legislation, Districts 4, 5, and 6

Terms 1973-76. Nominate two for each district, elect one for each district. Incumbents: Arthur A. Derrick, Jr., Durant, District 4; John G. Cadon, Jr., Jackson, District 5; and Frank H. Tucker, Meridian, District 6.

Council on Medical Education

Term 1973-76. Nominate two, elect one. Incumbent: Charles N. Floyd, Gulfport.

Council on Medical Service, Districts 7, 8, and 9

Terms 1973-76. Nominate two for each district, elect one for each district. Incumbents: Charles R. Jenkins, Laurel, District 7; Jack A. Atkinson, Brookhaven, District 8; and Bedford F. Floyd, Jr., Gulfport, District 9.

Mississippi State Board of Health

Terms January 1, 1974-December 31, 1979.

Public Health District 1. Counties of Alcorn, Prentiss, Tishomingo, Lee, Itawamba, Monroe, Lowndes, Oktibbeha, and Noxubee. Nominate six, select three for submission to Governor. Incumbent: Dewitt Hamrick, Corinth.

Public Health District 3. Counties of Tunica, Coahoma, Quitman, Bolivar, Sunflower, Issaquena, Leflore, Humphreys, Holmes, Washington and Sharkey. Nominate six, select three for submission to Governor. Incumbent: John G. Egger, Drew.

REPORT OF THE DELEGATES TO AMA

Your delegates to the American Medical Association, in conformity with custom and past practices, have limited their joint report to this House of Delegates to key policy actions at the annual and clinical conventions. Because of the comprehensive reporting in the *American Medical News* and *Journal AMA* of scientific and subsidiary activities, further reporting of these aspects of the AMA conventions would constitute needless duplication and repetition.

Dr. C. D. Taylor, Jr., of Pass Christian completed the second year of his first full term, Dec. 31, 1972. Dr. G. Swink Hicks of Natchez completed the first year of his second full term Dec.

31, 1972. Dr. Joseph B. Rogers of Oxford (elected in May 1972) entered his first term as AMA Delegate on Jan. 1, 1973. Dr. Stanley A. Hill of Corinth completed the first year of his term as Alternate Delegate. Dr. Arthur E. Brown of Columbus (elected in May 1972) entered his first term as Alternate Delegate on Jan. 1, 1973.

This reporting covers the 121st Annual Convention at San Francisco, June 18-22, 1972, and the 26th Clinical Convention at Cincinnati, Nov. 26-29, 1972. Your delegation is indebted to our president and other officers and members who participated in these conventions and worked with us.

San Francisco Annual Convention. The AMA House of Delegates met for a total of 17 hours and 20 minutes and acted on 59 reports and 130 resolutions during the 121st Annual Convention, June 18-22, 1972. Additional time was spent in reference committee discussion. Delegates named Dr. Russell B. Roth of Erie, Pa., President-elect. Other officers were named in the *AMA News*.

Dr. Carl A. Hoffman of Huntington, W. Va. in his inaugural address used as a theme, "A House of Medicine United—or a House Divided?" He spoke out strongly against unionism in our profession. He thought the power of the union was the strike, and a strike, even the threat of a strike, is a threat to withhold services. It is, therefore, a violation of medical ethics. He pointed out that millions of Americans still enjoy a close personal relationship with their physicians.

Dr. Wesley W. Hall of Reno, Nev., retiring president of the AMA, paraphrased President J. F. Kennedy's "Ask not what your profession can do for you, but what you can do for your profession." Dr. Hall said he "attempted to visit with every doctor possible at every medical meeting he attended." He recommended six considerations to the House:

- (1) Study of physician manpower supply and medical schools to determine precisely how many doctors the country needs and how they should be distributed.

- (2) Better liaison with medical schools.

- (3) A national speakers bureau of the AMA.

- (4) Improvement of liaison with constituent and component societies.

- (5) A management survey of AMA.

- (6) A three-times yearly report from AMA to delegates and state society officials showing current AMA membership, state by state.

The House received and adopted results of the first membership opinion poll on critical issues affecting the practice of medicine. Of the respondents, 73.1 per cent recommended that AMA continue to seek to retain the basic principles of

private practice in any government enacted health program. Fifty-five per cent preferred the AMA plan of national health insurance over all others. The poll was critical of AMA on some issues and services and also was in accordance with many of the ideas as put forth by AMA.

The House approved a policy opposing employment of physicians' assistants in and by hospitals. The physician must direct the assistant. Guidelines for compensating physicians for services of physicians' assistants urged legislation to empower State Boards of Medical Examiners to approve a physician's employment of an assistant and to approve proposed functions of the assistant as described by his employer. The use of the term, physician's assistant, refers solely to the new occupations being developed to assist the physician in delivery of personal care services.

The delegates voted to support efforts to increase the number and improve the utilization of medical, nursing and allied health personnel until 1975, and then to re-evaluate needs. They strongly supported and reaffirmed the expanded role for the nurse in providing patient care and related her to physicians' assistants so that complementation and not duplication will be the end result.

Representatives of the AMA, Association of American Medical Colleges, Council of Medical Specialty Societies, American Hospital Association, the public, and the federal government will participate in a liaison committee on graduate medical education and a Coordinating Council on Medical Education. Interns, residents, and even medical students, will shortly be brought into these bodies.

"The AMA does not condone the production, sale or use of marihuana. It does, however, recommend that the personal possession of insignificant amounts be considered at most a misdemeanor with conservative penalties applied." The House also recommends its (marihuana) prohibition for public use.

Doctors' fees can hardly be set by third parties, and only duly constituted members of organized medicine shall determine "usual, customary, and reasonable fees." Most of the discussion was directed at Aetna Life and Casualty Insurance Co.

Other actions included receipt of a report from the Executive Vice-President, Dr. Ernest B. Howard, which delineated the many services rendered by the AMA central office and staff. It was enlightening.

Medical students can be taken into direct membership under a new procedure. The Atlantic City date in 1975 was reaffirmed and in 1976 the convention will go to Dallas.

Fireman's Fund has a new accepted contract for group disability insurance.

Discussion of terms of offices, selection of delegates, numerical representation and geographic representation of the Board of Trustees was held. The Council on Long Range Planning will explore these matters and delegates will vote in November 1972 on Board of Trustees terms.

Dr. Paul Dudley White of Boston received the fifth annual Sheen Award (including a check for \$10,000.00) for outstanding contributions to medicine.

(This report was prepared by C. D. Taylor, Jr., M.D., of Pass Christian, Delegate to AMA.)

Cincinnati Clinical Convention. The AMA House of Delegates met for a total of 8 hours and 55 minutes and acted on 59 reports and 65 resolutions during the 26th clinical convention, Nov. 26-29, 1972.

The major issue was the recently passed legislation, H.R.1, which authorized professional standards review organizations. The House voted for the AMA to "provide a dominant role of leadership in the implementation of the PSRO program to assure that the best interests of the public and the profession are preserved." An Advisory Committee on Professional Standards Review will be created by the Board of Trustees to help provide input from the medical profession in development of PSRO regulations; to help constituent societies set up PSROs; and to aid in defining appropriate geographic boundaries.

In his presidential address, Dr. Carl A. Hoffman of Huntington, W. Va., emphasized the problems of inadequate catastrophic illness insurance coverage and maldistribution of physicians and reported on his recent trip to England, Sweden, West Germany and the Soviet Union. He was impressed that health care problems, especially maldistribution which limits access to medical care for some citizens, were similar to those in the U. S. despite vastly different economic, political and cultural conditions.

Recent budget restraints recommended by the Board of Trustees were approved by the House, including termination of four councils and six committees. Further economizing resulted in making specialty journals available on subscription only, beginning Jan. 9. The *JAMA* and *Prism*, the AMA's new socioeconomic publication, will be sent as membership benefits.

Delegates voted to limit terms of trustees to two 3-year terms. The matter was referred to the Council on Constitution and Bylaws for further study and recommendations.

(Turn to page 180)



The President Speaking

'The Ladies, God Bless Them'

CHARLES R. JENKINS, M.D.

Laurel, Mississippi

ONE OF THE MOST enjoyable associations of a president of the MSMA is his relationship with the Woman's Auxiliary. Everywhere I go I am amazed by their enthusiasm, knowledge of medical socioeconomics, and their desire at all times to assist their husbands in their medical and civic endeavors.

It was my pleasure this past winter to write an article for Distaff in which I mentioned possible channels for their energy. On January 23 I was asked to speak at their winter board meeting in Jackson and at that time requested them to write me about the various projects on which they were working. The response has been most gratifying and for the information of the MSMA membership at large I will attempt to record some.

Auxiliary members in one city toured the preventorium and are giving assistance to the program. Members in other cities give of their time to nursing homes, hospitals, and day care centers. Others work with retarded children, both in mental health centers and day care schools. A few devote time to health education, blood donor programs occupy some, while others work with nutritional health programs. All auxiliaries contribute to AMA-ERF and many have scholarship and loan programs. Everywhere they are interested in ecology and evidence their concern both locally and on a state and national scale. Many state and national officials are the recipients of letters from auxiliary members prodding these officials to take action where environmental changes are needed.

The largest single program the state auxiliary is working on is the Pierre the Pelican project. This is a series of pamphlets written to help parents raise physically and mentally healthy children. This series is sent to a family when their first child is born and continues until the child is six years of age. The Mississippi State Board of Health will handle the mechanics of printing and sending Pierre, but does not have the funds for the project. Each auxiliary in the state has been asked to raise funds for Pierre and these fund raising campaigns are both diverse and original.

Mrs. Binny Webb of Jackson, the capable and energetic state auxiliary president, assures me that this campaign will be successful.

All physicians should swell with pride at the accomplishments of their talented and gifted wives. One lovely lady from north Mississippi wrote me of her efforts in the auxiliary. One of her statements made such a profound impression it deserves repeating:

"I feel that living life as a physician's wife is the most wonderful thing in the world. My most meaningful contribution is being a doctor's wife first, aiding him personally and professionally in all ways of which I am capable, and then to take on other responsibilities as my time and talents will permit." ★★★

JOURNAL OF THE
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APRIL 1973



EDITORIALS

Mississippi Foundation for Medical Care

A storm of protest and dissatisfaction on the part of the members of the Mississippi State Medical Association concerning encroachment upon the traditional physician/patient relationship by third party payors, who had entered the health care picture in recent years, prompted action by the House of Delegates at the 103rd Annual Session of the Mississippi State Medical Association in May 1971. The House of Delegates directed and empowered the Board of Trustees to organize the Mississippi Foundation for Medical Care to promote a better understanding and a working relationship between all third party payors and physicians, and their patients. Much effort, time, and thought have been given by the Board of Trustees and the Executive Staff in investigating, planning, and putting together an organization which would encompass the intent of the House of Delegates.

The charter for the foundation was granted on July 6, 1971, and the first organizational meeting was held on August 25, 1971, in Jackson, Mississippi. The next 12 months were consumed in formulating and adopting a specific concept of operation. Many of the foundations operating in the United States were personally visited and investigated, and many others furnished data and information for the benefit of the Board of Trustees. Action in the latter part of 1972 was directed toward informing physicians of the progress of the foundation and encouraging membership. It was the unanimous opinion of the Board of Trustees that at least 70 per cent of the private practicing physicians of the Mississippi State Medical Association should be members of the

foundation before completing the organization and adopting governing policies for the foundation and before proceeding with plans and details in developing a statewide usual, customary, and reasonable fee schedule. It was felt that discussions with third party payors should reflect the opinions of the vast majority of physicians. In late December of 1972 the foundation reached its membership goal of 70 per cent of the private practicing physicians of the state medical association. Immediately the tempo of progress began to increase—a committee for the development of statewide usual, customary, and reasonable, fee schedules was appointed; the committee held its first organizational meeting on January 25, 1973, and immediately went into action in an effort to set up an operating protocol. Only members of the foundation will be requested to furnish their fee schedules. The Fee Development Committee will request the assistance of the specialty societies on an advisory basis.

The Executive Committee of the MFMC was authorized by the Board of Directors to meet with a duly appointed committee from the Blue Plan of Mississippi. Two preliminary planning conferences have already been held with Mr. George Butler, president of Blue Cross-Blue Shield, resulting in favorable progress.

The following basic principles of the MFMC were used as a basis for discussion:

(1) The consumer should have the right to choose his insurance carrier on a competitive basis and the type of coverage he feels best suited to his needs. He should have free choice of phy-

sician, hospital, or institution for medical care.

(2) Every physician should have the right to serve whatever system of health care he chooses—capitation, salary, fee for service, etc. He should be free to contract direct with patients for charges for medical care as long as they are proper and in the bounds of reasonableness. A private contract between doctor and patient that has been confirmed prior to service and accepted by the patient based upon an informed consent is a private contract that cannot be changed by any means.

(3) The foundation promotes peer review entirely under the control of the medical profession.

(4) The foundation serves as an advocate of quality care at a reasonable cost to the patient as determined by the usual, customary, and reasonable fee schedule of the foundation.

(5) The foundation is a "middle of the road organization." It strives to serve as a constructive intermediary between patient, physician, and third party payor.

(6) The foundation provides professional expertise in monitoring quality medical care for the patient at usual, customary and reasonable fees, thus providing a firm and stable basis upon which the third party can compute premiums for its policy holders.

J. T. DAVIS, M.D.

Chairman, MSMA Board of Trustees
Corinth, Miss.

Arterial Blood Gases

The article by Morgan and Williams in this issue stresses the importance and need of pH and arterial blood gas determinations for diagnosis and management of patients with a wide range of illnesses. The authors particularly emphasize the practicality of having these tests available on a 24-hour basis in small as well as large hospitals.

pH and blood gas determinations were primarily research tools until the Clark and Severinghaus electrodes for measuring partial pressure of oxygen and carbon dioxide respectively were developed in recent years. Even then, use was primarily limited to institutions with house staff present to perform the frequent arterial punctures because venous blood determinations are of no value. To overcome this problem, some hospitals in the state have trained selected technicians or inhalation therapists to perform arterial punctures, thus providing the busy physician with the information without requiring his presence. Using well trained

and motivated technicians, complications are very unusual if the brachial (preferably) or radial arteries are utilized. Femoral punctures carry an increased risk and probably should be done by physicians, or rarely by an unusually competent technician when a physician is not available.

One hospital in the state has utilized technicians for arterial punctures for the past seven years with no serious complications, despite averaging 4,000 punctures annually. Other hospitals have had similar experiences. The technician should take special precautions in patients receiving heparin or coumadin derivatives.

The authors appropriately stress the pitfalls both in instrumentation and personnel competency. Equipment dependability and personnel reliability are definitely enhanced by having as few technicians as possible responsible for these procedures. Disposable plastic syringes may be employed instead of glass syringes, but usually require suction to fill the syringe. The determination should be made *immediately* after the blood is withdrawn, especially if the patient is receiving supplemental oxygen. The blood can be drawn and duplicate studies performed in less than 15 minutes. Even though frequent testing may be required, an indwelling arterial catheter is rarely indicated. The blood gas report form should indicate whether the patient is breathing room air, oxygen (if so, per cent oxygen and liters per minute flow), date, and time the blood was



"It looks like high output failure."

obtained. This is particularly important in patients on, or considered for, controlled ventilation.

As pH and partial pressure of arterial oxygen are both determined, one can use a nomogram to measure arterial saturation. Similarly, knowing pH and the partial pressure of carbon dioxide, the bicarbonate of arterial blood can be calculated from a simple slide rule.

This timely article should encourage hospitals without these facilities to make them available to their respective staffs. Resources are available within the state for training technicians at no cost both in instrumentation and arterial puncture.

GUY D. CAMPBELL, M.D.
Jackson, Miss.

Venereal Disease Increases in State

An 8.6 per cent increase in infectious syphilis and a 25.9 per cent increase in gonorrhea since calendar year 1971 are figures that Mississippians are presently faced with.

According to Eric Henderson, supervisor of the Epidemiology Unit, State Board of Health, Mississippi far exceeds the national average in both infectious syphilis cases and cases of gonorrhea. These figures are based at a rate per 100,000 population. Nationally, an 11.7 case rate has been cited as opposed to a 20.4 syphilis rate per 100,000 in Mississippi. The national figures on gonorrhea for fiscal year 1972 came to 349.5 and Mississippi had a 455.2 case rate per 100,000.

What is being done to lower these astounding statistics? Officials at the Board of Health, and on the county levels, seem to feel that in spite of these "facts," there is still a note of optimism.

Dave Parish, state coordinator of the Gonorrhea Screening Program, says that the primary reason for optimism is the fact that "more people are now seeking and getting treatment for both syphilis and gonorrhea."

The Gonorrhea Screening Program is one of the major instruments now being utilized to better control the V.D. situation. Started in mid-June, 1972, this project was funded by a federal grant in cooperation with existing state V.D. programs. "Naturally," said Parish, "our long term goal is to significantly reduce the gonorrhea rate, but we do have some immediate goals. These include screening a large number of asymptomatic females (10 per cent of child-bearing age and 20 per cent of high risk females) and bringing to treatment those screened positive." To date, 3,226

patients have screened positive; 2,753 have received treatment; 408 are under investigation; and 65 have moved or are unlocatable.

This program is obviously active throughout the state with 28 V.D. investigators "working in the field to locate, confer with, advise and bring to treatment those who are in need of help," Parish added.

"One particularly significant aspect in the area of V.D. control today," notes Glenn Collins, state supervisor of the Gonorrhea Screening Program, "is the awareness that patients may seek and obtain treatment from health departments or private physicians in a completely confidential manner. This is especially important to teenagers."

Health officials seem most concerned over the large number of misconceptions about the venereal disease problem. Probably the most widely spread misinformation pertains to the belief that one may contract the diseases from toilet seats. "No," says Dr. Durward Blakey of the Board of Health's Preventable Disease Control Division. "This is completely unfounded, yet a large segment of the population adheres to this belief." Educating people by giving them proper medical information is a big part of the cooperative work being done between the State Board of Health and various civic organizations.

For instance, Jaycee chapters across the state have taken on "V.D. Education" as one of their special annual projects. They are going into schools showing films, presenting talks and holding discussions in a combined effort with each county health department. Also, PTA groups and the Mississippi Pharmaceutical Association have been behind health officials concerning this state-wide problem.

County health centers throughout the state have access to personnel and other capabilities needed to aid the V.D. patient. Although every one of them may not have a regular specialized staff, resources may be reached through that health department.

Dr. Eric McVey, Health Officer for Hinds and Rankin counties, sees the largest volume of V.D. patients with Hinds County leading the state in venereal disease occurrence. "This is to be expected," said Dr. McVey. "In the larger, more concentrated areas, the V.D. incidence rate is always higher." In 1972, Hinds County reported 236 cases of early syphilis and 2,855 cases of gonorrhea. Receiving treatment in Hinds County alone in 1972 were 38.2 per cent of all early syphilis patients. Says Dr. McVey, "These rates would be higher if we had more treatment capacity available."

EDITORIALS / Continued

How complicated is V.D. to treat? "Actually," said health officials, "it's very simple in most cases. One visit to the health department or private physician should be sufficient, although checkups are certainly advisable."

Mississippi's Gonorrhea Screening Program has already established a name for itself in that it was the first in the nation to get the program "off and running smoothly," and it has the figures to back this up.

"In 1971," said Collins, "3.5 males per female were being treated; in 1972, 2 males for every female were treated; and since this program has been underway, 1.4 males per female have been treated. This is what we're trying to do—locate and bring to treatment more asymptomatic females." Collins noted that in the past females have been desperately overlooked, "and until both men and women are given proper care, we can't expect a brighter overall picture."

Summing up the State Board of Health's role in the area of V.D. control could probably be best said in words like prevention, education and treatment.

"As with all health problems," reiterated State Health Officer, Dr. Hugh B. Cottrell, "we emphasize prevention. Hopefully, as the state becomes more educated to the V.D. problem, prevention, rather than massive treatment, will become more significant."

State Board of Health
Jackson, Miss.



POSTGRADUATE CALENDAR

April 19, 1973

DIABETES AND DIABETIC RETINOPATHY SEMINAR

University Medical Center, Jackson

April 19, 1973, beginning at 8:30 a.m.

Sponsored by The University of Mississippi School of Medicine, Mississippi Diabetes Association, Mississippi Regional Medical Program, Upjohn Pharmaceutical Company, Alcon Laboratories

Participants:

Phillip Gordon, M.D., senior investigator, Clinical Endocrinology Branch, National Institute of Arthritis, Metabolism and Digestive Diseases, National Institutes of Health, Bethesda, Maryland

James D. Hardy, M.D., professor of surgery and

chairman of the department, The University of Mississippi School of Medicine

Hunter Little, M.D., ophthalmologist, Palo Alto Medical Clinic, Palo Alto, California; assistant clinical professor, United States Naval Hospital, San Diego, California

Leonard Madison, M.D., professor of internal medicine, The University of Texas Southwestern Medical School, Dallas, Texas

Frazier Ward, M.D., assistant professor of surgery, The University of Mississippi School of Medicine

Thursday Morning

THE NATURE OF INSULIN AND PROINSULIN SECRETION IN MAN

Dr. Gordon

MANAGEMENT OF DIABETIC FOOT

Dr. Hardy, Dr. Ward

Thursday Afternoon

THE EPIDEMIC OF FUNCTIONAL HYPOGLYCEMIA AND THE TWO-HEADED MONSTER

Dr. Madison

THE PATHOGENESIS OF DIABETIC RETINOPATHY

Dr. Little

MISSISSIPPI POSTGRADUATE INSTITUTE IN THE MEDICAL SCIENCES

April 2-6, 1973

PEDIATRICS INTENSIVE COURSE

University Medical Center, Jackson

April 2-6, 1973, beginning at 8 a.m.

Sponsored by The University of Mississippi School of Medicine, with the support of the Mississippi Regional Medical Program.

Coordinator:

Nell J. Ryan, M.D., associate professor of pediatrics, The University of Mississippi School of Medicine

J. M. Montalvo, M.D., associate professor of pediatrics, The University of Mississippi School of Medicine

This one-week intensive course will review registrants on such skills as scalp vein technique, use of the respirator, nebulizer and humidifier. Registrants will attend lectures on hematology, fluids, pediatric emergencies, cardiology, immunizations, allergies, seizures, pediatric surgery, renal problems and the care of the newborn.

Both intensive courses are offered through the Mississippi Postgraduate Institute in the Medical Sciences, a Mississippi Regional Medical Program-supported project. The courses are open to Mississippi family physicians enrolled in the four-year institute.

FUTURE CALENDAR

April 2-6, 1973

PEDIATRIC INTENSIVE COURSE

April 19

DIABETIC RETINOPATHIES

April 23-27

RADIOLOGY INTENSIVE COURSE

April 30-May 3

MISSISSIPPI STATE MEDICAL ASSOCIATION,
BILOXI



PERSONALS

GODFREY ARNOLD of Jackson and UMC attended a conference on early detection of laryngeal pathology held recently in Gainesville, Fla.

THOMAS GORDON BARNES, III, of Greenville was crowned king of the 17th annual Junior Auxiliary Charity Ball at the annual festivity.

D. N. BLAYLOCK announces the removal of his office to 1316 Hospital Street in Greenville. Dr. Blaylock limits his practice to internal medicine.

ROBERT E. BLOUNT of Jackson, UMC dean and director, talked about careers in medicine at the Mississippi Baptist High School Career Day.

GUY D. CAMPBELL of Jackson and W. L. JACQUITH of Whitfield were participants in the American Association of Medical Assistants, Mississippi Society, second annual educational symposium, "Gateway to Achievement" held in Jackson on Mar. 3.

J. P. CULPEPPER, III, of Hattiesburg has been appointed State Liaison Fellow, Commission on Cancer, American College of Surgeons.

EDWARD H. CURRIE of Gulfport was on the panel which discussed sexual behavior among teenagers held in Gulfport and sponsored by the Family Planning Association of Harrison County. Dr. Currie is an obstetrician-gynecologist.

W. MONCURE DABNEY of Crystal Springs has been elected president of the South Central Medical Society.

JOHN Y. GIBSON of Jackson and UMC was in Atlanta Feb. 5-6 for the American Board of Radiology examination.

WILLIAM D. GILES of Hattiesburg was inducted as a Fellow of the American Academy of Orthopaedic Surgeons at the group's annual meeting in Las Vegas.

JAMES GRAHAM of Enterprise was guest speaker at the recent meeting of the Columbus Chapter of Full Gospel Business Men's Fellowship International.

CHESTER FARMER announces that he has resumed the full time practice of dermatology at 509 South Magnolia Street in Laurel.

JAMES D. HARDY and WILLIAM A. NEELY of Jackson and UMC attended the New Orleans meeting of the Society of University Surgeons.

GUY C. JARRATT of Vicksburg was honored at a retirement party by the physicians of the Street Clinic staff. Dr. Jarratt had practiced pediatrics for 42 years.

MARVIN JETER of Jackson and UMC attended an American College of Emergency Physicians workshop in Las Vegas recently.

DONALD E. KILLELEA of Natchez attended the seventh annual symposium for referring physicians to St. Jude Children's Research Hospital in Memphis Feb. 23-24.

CHARLES L. NEILL of Jackson exhibited his extensive collection of pre-Colombian Indian artifacts found entirely within the city limits of Jackson at the annual show of the Mississippi Gem and Mineral Society.

R. F. O'FERRALL of Jackson took part as a charter member in the Boy Scout Troop No. 1 of St. Andrew's Cathedral celebration of the 57th anniversary of the troop.

DAVID OWEN of Hattiesburg has been re-elected vice president of the Christian Action Commission of the Mississippi Baptist Convention.

JOHN M. PARKER of Biloxi was presented the Zolla Coper Seminar award that went to the team for presenting the "Most Unusual Case" at the seminar of the Southern Medical Association.

ALFIO RAUSA of Greenwood was guest speaker at the Division 5 meeting of the Licensed Practical Nurses held at Tyler Holmes Hospital in Winona.

JOE M. ROSS of Vicksburg has been appointed chairman of the Board of Trustees of State Eleemosynary Institutions. Other newly appointed physician Board members are JETSON P. TATUM of Meridian, vice chairman; JOHN R. YOUNG of Natchez; and CHARLES A. HOLLINGSHEAD of Laurel.

B. G. SPELL of Jackson announces the removal of his office to 200 St. Dominic Offices, 971 Lakeland Drive. Dr. Spell limits his practice to orthopedic surgery.

**Because you
practice
medicine in the
Magnolia State...**



You carry one of the heaviest patient loads in the country. Since this may include a number of patients with gastritis and duodenitis... you should know more about Librax®

Helps reduce anxiety-related G.I. symptoms

A patient may blame his attacks of gastritis or duodenitis on "something he ate" but contributing factors may be his job, marital problems, financial worries or some other unmentioned source of stress and excessive anxiety that exacerbated the condition. Whether it is "something he ate" or "something eating him," adjunctive Librax can help. Librax offers both the antianxiety action of Librium® (chlordiazepoxide HCl), that can help relieve excessive anxiety, and the dependable anticholinergic action of Quarzan® (clidinium Br), that can help reduce gastrointestinal hypermotility and hypersecretion.



Patient-oriented dosage — up to 8 capsules daily in divided doses

For optimal response, dosage can be adjusted to suit patient needs—1 or 2 capsules, 3 or 4 times a day.

To help relieve anxiety-linked symptoms in gastritis and duodenitis adjunctive Librax®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions

in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

P. K. THOMAS of Tupelo received the 10th Annual Outstanding Citizen Award of the Tupelo Junior Auxiliary. The announcement was made during the Auxiliary's Charity Ball at Natchez Trace Hall of Fame. Dr. Thomas limits his practice to obstetrics and gynecology.


SAMUEL J. WILDER, JR., of Jackson was inducted as a Fellow of the American Academy of Orthopaedic Surgeons at the group's annual meeting in Las Vegas.

DAVID WILSON of Jackson and UMC participated in conferences of the American Hospital Association annual meeting and AHA committee on nominations in Chicago.

JOHN D. WOFFORD of Greenwood was inducted as a Fellow into the American College of Cardiology at the annual meeting in San Francisco.



DEATHS

 LAIRD, JOHN STEPHEN, Union, Miss. M.D., Louisville Medical College, Louisville, Ky., 1904; interned State Hospital, Vicksburg, Miss., for six months in 1903; Emeritus member of MSMA & AMA; member of Fifty Year Club MSMA; member of East Mississippi Medical Society; died Feb. 26, 1973, age 90.



NEW MEMBERS

MATTHEWS, JAMES C., Meridian. Born Waynesboro, Miss., Feb. 5, 1943; M.D., Medical College of Alabama, Birmingham, Ala., 1967; interned for one year, Lloyd Noland Hospital, Fairfield, Ala.; residency in surgery, same, July 1, 1968-June 30, 1972; elected by East Mississippi Medical Society.

WARFIELD, WILLIAM P., III, Moss Point. Born Memphis, Tenn., Aug. 9, 1942; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1968; interned, same, for one year; surgery residency, same, July 1, 1969-Nov. 1, 1971; elected by Singing River Medical Society.

Occupational Health Congress Planned

The 33rd Annual Congress on Occupational Health will be held at The Benjamin Franklin Hotel in Philadelphia, Pa., Sept. 17-18, 1973.

For further information, write Dr. Henry F. Howe, Associate Director, AMA Department of Environmental, Public, and Occupational Health, 535 N. Dearborn St., Chicago, Ill. 60610.

NHLI Issues Report on Respiratory Diseases

The National Heart and Lung Institute's Division of Lung Diseases, HEW, has issued a 243-page report on respiratory diseases.

The lung diseases discussed in the report account for an estimated 150,000 deaths each year in the U. S., cause 60 million days lost from work, 40 million days of bed-restricted activity, and cost the economy some \$6 billion in lost productivity, wages and costs of medical care.

The report assesses the magnitude of the health problems posed by particular respiratory disorders; summarizes the current state of knowledge with respect to causation, prevention, diagnosis, and treatment; identifies disparities between what is currently being done to combat these diseases and what needs to be done; and recommends steps to strengthen present research efforts.

It was prepared by a 12-member task force established to assist the Division of Lung Diseases in identifying problems and approaches that should receive high priority in the Institute's immediate and long-range plans. Each member of the task force also served as chairman of a panel of experts on specific respiratory-disease topics, so that a total of 188 biomedical scientists contributed to the report.

Following assessment of the current state of knowledge, each panel identifies the most pressing problems that remain unsolved and recommends steps toward their solution. These recommendations encompass both immediate and long-term goals, including the establishment and support of new types of physical resources; special training of research, clinical and paramedical manpower in the respiratory-disease field; and new mechanisms of support for these activities.

Single copies of the report (NIH) 73-432 may be obtained from: The Division of Lung Diseases, National Heart and Lung Institute, Bethesda, Md. 20014.



Book Review

Symposium on Aesthetic Surgery of the Face, Eyelid, and Breast. Volume four. Edited by Frank W. Masters, M.D., and John R. Lewis, Jr., M.D. 222 pages with 446 illustrations. St. Louis: The C. V. Mosby Company, 1972. \$35.50.

"This volume represents the summation" of the Proceedings of the Symposium of the Educational Foundation of the American Society of Plastic and Reconstructive Surgeons Inc., which has for several years sponsored in-depth symposia on various broad areas of plastic surgery. This symposium was held in Phoenix, Arizona, Nov. 11-14, 1970, with the aid of the American Society for Aesthetic Plastic Surgery, Inc. The participants were all nationally recognized authorities in the field and have contributed significantly to its development.

Psychological and socioeconomic considerations are discussed in the beginning and stressed throughout the presentations. The first sections deal with aesthetic surgery for the aging face including eyelids. All standard techniques, as well as minor variations, are presented. Complications and their avoidance are stressed. It is admirable to see the "experts" show their own complications and to realistically discuss them. The realization that such complications are possible, even in the hands of eminently qualified surgeons, should serve to discourage those unqualified from attempting such procedures.

Augmentation mammoplasty is discussed in detail, including indications, technique and complications. Most plastic surgeons would find little with which to disagree in this section. Many, however, would disagree with the concept of immediate reconstruction following subcutaneous mastectomy. If the indication for the mastectomy is premalignant breast disease, the possibility of foci of carcinoma should be definitely excluded prior to implanting any foreign material. To adequately resect the potentially malignant breast requires formation of large relatively thin skin flaps whose viability is quite precarious even without an underlying implant. To compromise a "cancer preventing" operation to achieve an initial satisfactory aesthetic result is not justified. Most surgeons today favor delayed reconstruction of from three to six months. This concept is not presented.

Many of the illustrations and photographs have previously appeared in other publications and are presented here without acknowledgement. The bibliography is excessive in some areas (156 references for a 5 page chapter) and completely absent in other areas. The relatively high price is due in part to the high quality of the paper and binding, as well as the limited market.

In general, the volume would be an excellent "notebook" for those who attended the symposium, but it is not, as the editor states, a "reference source of information about standardized approaches. . . ."

WILLIAM E. NOBLIN, III, M.D.
Jackson, Miss.

National Health Council Sponsors Courses

The National Health Council, through its Committee on Continuing Education, announces 10 short courses in 1973 selected for personnel of official, professional, and voluntary health agencies and organizations.

The course subjects will include: comprehensive health planning, consultation skills, community organization in health care services, executive development, leadership development, and voluntary health agency in the community.

The 10 courses will be conducted by seven universities on various dates ranging from April through August 1973. Cooperating universities are: Columbia University (School of Public Health), University of Florida (College of Health Related Professions), George Williams College (Division of Social Work Education), Indiana University (Graduate School of Business), University of Michigan (School of Public Health), University of Oklahoma (Department of Health Administration and School of Health), and Washington University (Office of Conferences and Short Courses).

Descriptive brochures and other information on these courses may be obtained by writing to: Continuing Education Program, National Health Council, 1740 Broadway, New York, N. Y. 10019.



Woman's Auxiliary to the Mississippi State Medical Association

As doctors' wives, we have great responsibility and great privilege. We do not have to work to earn a living for our families. We are able to give time and effort to the needs of our communities. By doing volunteer work, especially in the health care field, we help you by supporting your programs and by showing the community that we are sincerely interested in health care.

This column in your journal will tell you about our programs. This month I want to tell you about our *Pierre the Pelican* project. *Pierre the Pelican*, a series of pamphlets originated in Louisiana, is designed to help new parents raise physically and mentally healthy children. Cleverly and simply written, *Pierre the Pelican* has been used successfully for many years. Twenty states now have the program; Texas is ready to begin soon. Lack of money has delayed the project in Mississippi. The Mental Health Services of the State Board of Health asked the Woman's Auxiliary to help raise funds. It was suggested that we raise enough money to carry the program for two years. After this initial period expenses will decrease and there is a possibility that government funds may be available to continue the program.

Several auxiliaries are working to raise part of this initial money. Central Medical Auxiliary has solicited donations from businesses and individuals. The response has been very encouraging. This auxiliary also had a successful fund-raising ball. Other auxiliaries are making plans for fund raising.

We feel that this is an appropriate project for doctors' wives. In addition to its primary purpose of helping parents and children, the project will be good public relations. Each pamphlet will give credit to the Woman's Auxiliary of the Mississippi State Medical Association.

BINNY WEBB
(Mrs. Clarence H. Webb, Jr.)
President, Woman's Auxiliary



Specialty Societies, Concurrent Meetings Highlight the 105th Annual Session

More than 15 specialty society and related activities will hold concomitant meetings with the association's 105th Annual Session in Biloxi, April 30-May 3, 1973, at the Sheraton-Biloxi.

The American College of Surgeons, Mississippi chapter, has set its annual meeting for Tuesday, May 1. President Raymond S. Martin, Jr., of Jackson will preside over the scientific session beginning with a guest speaker at the luncheon. Guest lecturers include Drs. A. Hamblin Letton of Atlanta, Ga.; Denton A. Cooley of Houston, Tex.; and Hiram C. Polk, Jr., of Louisville, Ky. A series of case reports will also be presented.

The Louisiana-Mississippi Ophthalmological and Otolaryngological Society will meet May 3-5 at the Sheraton-Biloxi. Beginning with the MSMA Scientific Section on Eye, Ear, Nose and Throat on Thursday, May 3, the society will hold an extensive scientific program over the ensuing weekend. Guest speakers will be Drs. Eugene M. Helveston of Indianapolis, Ind.; David Paton of Houston, Tex.; Charles W. Gross of Memphis, Tenn.; and Medney E. Tardy, Jr., of Elmhurst, Ill.

Members of the Mississippi Urological Society will convene Monday, April 30, at the Sheraton-Biloxi for a luncheon meeting. Dr. M. E. Hinman of Vicksburg is president and meeting chairman.

State radiologists will attend a fellowship hour and scientific program at the Sheraton-Biloxi on April 29. Dr. J. V. Ferguson of Greenwood is president of the Mississippi Radiological Society.

The Mississippi Orthopaedic Society will conduct a luncheon and program on Monday, April 30, at the headquarters hotel. President Magruder S. Corban of Gulfport will preside.

On Wednesday, May 2, the Mississippi Ob-Gyn Society will conduct a cocktail party and luncheon following the MSMA section meeting at the Sheraton-Biloxi. Dr. Walter L. Bourland of Tupelo is president.

Mississippi Society of Internal Medicine will conduct a luncheon meeting at noon on Wednesday, May 2. Dr. J. R. Shell of Vicksburg is president and meeting chairman.

Family physicians will gather when the Mississippi Academy of Family Physicians sponsors a luncheon meeting on Wednesday, May 2, in the Top of the Sheraton. Guest speaker will be Dr. W. R. Gillis, new chairman of the department at UMC. Dr. Eugene Webb of Itta Bena is MAFP president and Dr. W. B. Hunt of Grenada is president-elect.

Dr. William D. Atchison of Gulfport, president of the Mississippi Association of Pathologists, will preside over the business meeting of the association on April 29 at the Sheraton-Biloxi. Monday morning, April 30, will feature a special scientific session for the pathologists.

The Mississippi EENT Association will host a luncheon meeting on Thursday, May 3. Dr. John E. Green of Hattiesburg is president.

The Mississippi chapter of the Flying Physicians Association is sponsoring a cocktail party and dinner on Tuesday evening, May 1. Dr. Jack Stokes of Pontotoc is in charge of arrangements.

Two postgraduate courses will be offered concurrently with the annual session. A one-day Seminar on Family Planning Methodology will be held April 29 at the Sheraton-Biloxi. Faculty will be Dr. George R. Huggins of Philadelphia, Penn., and Drs. Calvin T. Hull and Donald M. Sherline of the UMC Department of Obstetrics and Gynecology.

A one hour course in practical tonometry for non-ophthalmologists will be given on Tuesday and Wednesday, May 1 and 2, by the Mississippi EENT Association and the Mississippi Society for Prevention of Blindness.

The Mississippi Neurosurgical Society will hold a luncheon program on Wednesday, May 2. Dr. Charles Neill of Jackson is president of the society.

ORGANIZATION / Continued

Four medical alumni meets are set for the convention week. Ole Miss medical alumni, their ladies and guests will meet on Monday, April 30, at the Sheraton-Biloxi. A general business meeting will be followed by the cocktail party and seafood jamboree dinner-dance. Dr. David Clippinger of Gulfport is program planning chairman and Charles William Price, alumni secretary, is in charge of arrangements.

Tennessee medical alumni will enjoy cocktails and dinner on Tuesday evening, May 1. Dr. Dennis Ward of Corinth is president of the Mississippi chapter. Mr. June Montgomery, UT director of Alumni Affairs, will be present.

Graduates of Tulane University will be feted at an informal cocktail party on Tuesday evening, May 1. Mrs. Dorothy Kimbell, administrative assistant, is making arrangements.

Vanderbilt medical alumni will enjoy a cocktail reception at the headquarters hotel on May 1. Mr. Ron Munkeboe, Director of Medical Alumni and Development, will be host.

The 18 living MSMA past presidents will enjoy a breakfast meeting on Wednesday morning, May 2. Dr. Arthur E. Brown of Columbus, immediate past president, is host.

Members of the Fifty Year Club will be honored at a special luncheon on Tuesday. The annual reference committee breakfast will be held on Monday, April 30.

Past presidents of the Woman's Auxiliary have scheduled a breakfast meeting on Wednesday. Mrs. T. E. Ross, III, of Hattiesburg is hostess.

Other events include the association cocktail party on May 2 and the annual golf tournament to be conducted at the Sunkist Country Club on Wednesday. Dr. A. V. Hays of Gulfport is in charge of the golf tournament arrangements.

AMA Medical Ethics Congress Planned

The Judicial Council of the American Medical Association announces that its Fourth National Congress on Medical Ethics will be held on April 26-28, 1973, at the Washington Hilton Hotel in Washington, D. C.

There is no registration fee for the Congress and early registration is recommended. Cassette tape highlights may be ordered for \$4.00.

Those interested should write directly to the Department of Medical Ethics, American Medical Association, 535 North Dearborn Street, Chicago, Ill. 60610.

PRESCRIBING INFORMATION

Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day; and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices. Because of limited data on repeated doses, no recommendations can be made.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles.

ROERIG 

A Division of Pfizer Pharmaceuticals
New York, New York 10017

Clean Sweep



with a single dose of Antiminth

(pyrantel pamoate) ORAL SUSPENSION

Highly effective against
pinworm and roundworm

Non-staining to teeth
or oral mucosa on ingestion, to
stools, clothing, linen

Simple dosage with a
single-dose regimen: 1 cc. per
10-lb. body weight (1 tsp./50 lb.;
maximum dose, 4 tsp.)

Well-tolerated, based on
clinical studies*

Pleasant-tasting, easy-to-
take, caramel-flavored oral
suspension

Economical, because one
prescription can treat the entire
family

ROERIG *Pfizer*

A division of Pfizer Pharmaceuticals
New York, New York 10017

ANTIMINTH®

(pyrantel pamoate)

equivalent to 50 mg. pyrantel/ml.

ORAL SUSPENSION

While Antiminth is highly effective against pinworms and roundworms, the illustration is not meant to imply 100% efficacy.
*Data on file at Roerig. Please see prescribing information on facing page.

MSMA Announces Changes in Group Catastrophe Insurance

As approved by the MSMA Board of Trustees, several improvements will be made in the sponsored \$15,000 Catastrophe Hospital Plan, effective May 1, 1973. Thomas Yates and Company of Jackson is administrator of the association group plans.

Plan improvements include: (1) increase in maximum room and board expense payable from \$32 to \$40 (80 per cent of \$50); (2) increase in aggregate amount payable for mental disorders from \$1500 to \$2500; and, (3) coverage for unmarried dependent children is now renewable to age 21 (25 if in college).

Premiums have been adjusted to compensate for plan improvements and inflation which has occurred in the past four years, since the last adjustment.

Members presently insured in the plan will receive certificate riders which guarantee increased benefits with their renewal premium notices.

Non-insured members will receive information for enrolling in the plan from Thomas Yates and Company.

ICS Awards Plaque to Dr. L. W. Long



Dr. Lawrence W. Long of Jackson proudly displays the plaque awarded him by the International College of Surgeons for serving the constitutional maximum of two terms, a total of four years, as treasurer. Dr. Long is now on the ICS Board of Governors and also serves as assistant secretary.

1973 Family Practice Exam Scheduled

The American Board of Family Practice announces that it will give its next two-day written certification examination on Oct. 20-21, 1973, in various centers throughout the United States.

Information regarding the examination can be obtained by writing: Dr. Nicholas J. Pisacano, secretary, American Board of Family Practice, Inc., University of Kentucky Medical Center, Annex #2, Room 229, Lexington, Ky. 40506.

It is necessary for each physician desiring to take the examination to file a completed application with the Board office. Deadline for receipt of applications in the Board office is Aug. 1, 1973.

Dr. Bowlus Named to Extendicare Advisory Staff

Dr. William E. Bowlus of Jackson, a neurologist psychiatrist, has been named to the Medical Advisory Staff of Extendicare, Inc., the company that operates Doctors Hospital of Jackson.

Dr. Bowlus is among 21 doctors named to the Medical Advisory Staff, which will provide counsel to Extendicare in maintaining high-quality patient care at the company's 47 hospitals.

The Medical Advisory Staff also will be another means of communication between the approximately 3,000 doctors on the medical staffs of Extendicare hospitals and the company.

Dr. Bowlus is chief of staff at Doctors Hospital of Jackson. He has been chairman of the utilization review committee and of the medical care evaluation committee at the Mississippi Baptist Hospital.

Dr. Bowlus completed a bachelor's degree at University of Southern Mississippi, Hattiesburg, and graduated from the school of medicine at the University of Mississippi. He also received a master's degree in physiology from the University of Mississippi. He served his internship and residency in neurology and psychiatry at the University Hospital in Jackson. Dr. Bowlus has been a clinical instructor in medicine and attending physician at the University Hospital, Jackson, and is neurology consultant to the Ellisville State School.

Extendicare's 47 hospitals contain 4,489 beds and are in 12 states in the Southeast and Southwest. It ranks among the top four investor-owned hospital companies in the U. S. in the total number of hospitals and total number of beds.

Mr. Rowland Kennedy Honored for Service

Mr. Rowland B. Kennedy, former Executive Secretary of the Mississippi State Medical Association, was honored for his more than 21 years of service to the organization at the March 6 meeting of the Central Medical Society in Jackson.

MSMA president Charles R. Jenkins of Laurel made the formal presentation on behalf of the officers and Trustees of the association.

Dr. Jenkins commended Mr. Kennedy as a friend to physicians who had given many years of dedicated service to the state medical association. He cited increased membership and the JOURNAL MSMA as special accomplishments.

As directed by the 1972 House of Delegates, an engraved plaque was presented by the president to recognize Mr. Kennedy "for his loyal and outstanding service to the medical profession."



Dr. Charles R. Jenkins of Laurel, MSMA president, is shown presenting the engraved plaque to Mr. Rowland B. Kennedy.

UMC Associate Professor Gets Hypertension Grant

Dr. Allen W. Cowley, Jr., University of Mississippi School of Medicine physiology-biophysics associate professor, has received an American Heart Association Established Investigatorship award to study the causes of hypertension.

One of a limited number of researchers in the nation to get the highly competitive award, the young scientist is the second recipient at the Medical Center.

The five-year grant of more than \$100,000 will

support Dr. Cowley's project, in which he uses computer techniques to construct mathematical biological systems, apply possible changes and predict the results.

"Our studies are aimed at determining the relative importance of individual biological systems on the daily control of blood pressure," Dr. Cowley explains, "and to examine any new systems which could be related to pressure regulation."

"We're looking at the central nervous system's baroreceptor reflex control system, the renin-angiotensin hormonal system and the renal system's maintenance of proper fluid balance," he continues. "Many of our studies are an effort to demonstrate the theory that unless kidney function is altered, there's practically no way to maintain hypertension for more than several days."

Based on the computer model of the biological system, the researchers alter the system's normal function through equations representing changes and thereby predict what the system would do under those conditions. The final step is back to the lab to see if animal systems react as projected.

Dr. Cowley, a Pennsylvania native, has been on the Medical Center faculty since 1968.

Heart Associations Sponsor Hypertension Course

A scientific session on "Hypertension—Its Incidence and Consequences" will be presented May 18-19, 1973, at the Marriott Hotel in New Orleans.

The seminar will be co-sponsored by the Mississippi, Arkansas and Louisiana Heart Associations, the American Heart Association councils on Clinical Cardiology and High Blood Pressure Research.

Guest faculty includes Drs. Harriet P. Dustan, Michael Broday, Walter Kirkendall, Richard Pad-dison, James D. Hardy, Edward H. Freis, George Morris and Philip Kadowitz.

Moderating sessions will be Drs. W. Sexton Lewis and Albert Hyman. Presiders include Drs. James W. Wilson, Jr., W. H. Rosenblatt and Charles W. Silverblatt.

The program is acceptable for nine elective hours by the American Academy of Family Physicians.

A registration fee of \$50.00 for nonmembers and \$40.00 for members will include a social hour and two luncheons. Registration fees should be mailed to the Louisiana Heart Association, 3303 Tulane Avenue, New Orleans, La. 70119.

All Mississippi physicians are eligible for membership in the Mississippi Heart Association.

Pinworm therapy is often a family affair



Contraindications: History of hypersensitivity to thiabendazole.

Warnings: If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.

Precautions: Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction,

patients should be carefully monitored.

Adverse Reactions: Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of live *Ascaris* in the mouth and nose. Hypersensitivity reactions

If he's making the
rounds of San Francisco...

Antivert[®] (meclizine HCl) for vertigo*

Antivert[®] (meclizine HCl) has been found useful in the management of vertigo associated with diseases affecting the vestibular system. It is available as Antivert (12.5 mg. meclizine HCl) and Antivert/25 (25 mg. meclizine HCl) scored tablets for convenience and flexibility of dosage. Antivert/25 (25 mg. meclizine HCl) Chewable Tablets are available for the management of nausea, vomiting, and dizziness associated with motion sickness.

***INDICATIONS.** Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows:

Effective: Management of nausea and vomiting and dizziness associated with motion sickness.

Possibly Effective: Management of vertigo associated with diseases affecting the vestibular system.

Final classification of the less than effective indications requires further investigation.

CONTRAINDICATIONS. Administration of Antivert during pregnancy or to women who may become pregnant is contraindicated in view of the teratogenic effect of the drug in rats.

The administration of meclizine to pregnant rats during the 12th-15th day of gestation has produced cleft palate in the offspring. Limited studies using doses of over 100 mg./kg./day in rabbits and 10 mg./kg./day in pigs and monkeys did not show cleft palate. Congeners of meclizine have caused cleft palate in species other than the rat.

Meclizine HCl is contraindicated in individuals who have shown a previous hypersensitivity to it.

WARNINGS. Since drowsiness may, on occasion, occur with use of this drug, patients should be warned of this possibility and cautioned against driving a car or operating dangerous machinery.

Usage in Children: Clinical studies establishing safety and effectiveness in children have not been done; therefore, usage is not recommended in the pediatric age group.

Usage in Pregnancy: See "Contraindications."

ADVERSE REACTIONS. Drowsiness, dry mouth and, on rare occasions, blurred vision have been reported.

ROERIG 

A division of Pfizer Pharmaceuticals
New York, New York 10017

Blue Cross Has New Emblem

The famous Blue Cross trademark, perhaps the best-known emblem in America, has been redesigned.

After 34 years, the seal in the center of the cross—containing various medical emblems—will be replaced by a stylized human figure in a circle.

George W. Butler, president of Blue Cross and Blue Shield of Mississippi, explaining the significance of the new symbol said:

"For many years the Blue Cross symbol has represented integrity and security in health care. This traditional concept is now given a new dimension by introducing the human figure in a circle.

"The outstretched arms and legs of the figure are indicative of a vigorous and healthy mankind. In essence, the total symbol—figure and cross—captures the spirit of the traditional Blue Cross service concept—helping people achieve health care."

Butler said the change was made to illustrate the fact that the Blue Cross system—74 Blue Cross Plans in the United States, plus four in Canada and one each in Jamaica and Puerto Rico—is more interested in people than anything else. The system serves nearly 100 million in the U. S. alone, through private programs of health care coverage and as administrator of federal programs such as Medicare and Medicaid.

In connection with the symbol change, the



George W. Butler, president of Blue Cross and Blue Shield of Mississippi, shows the new Blue Cross symbol to John D. Holland, chairman of the board.

Blue Cross system has announced a multi-point program that positively states its expanded commitment to today's consumer. The program calls for broader benefits, greater control of health care costs, more effective health education and other means of bringing better and more economical health care to the American people.

That program will not only affect Blue Cross subscribers, but will have positive effects on the care received by all persons.

The new Blue Cross design will begin being used immediately, Butler said, although "Several months may elapse before we can incorporate it on all our forms, cards and letterheads."

Butler also mentioned the new emblem will begin appearing across the nation in local and national advertising.

John D. Holland, chairman of the board of Blue Cross and Blue Shield of Mississippi, commented, "For a lot of years, many of us have looked to the Blue Cross emblem as the sign of protection for ourselves and our loved ones. We congratulate the Blue Cross system on its forward movements in helping to improve the availability, the cost and the quality of the health care all of us get."

Hinds Plans Drug Program

The Hinds County Association for Mental Health has been working since March 1, 1972, to determine needs in Hinds, Madison and Rankin counties insofar as drug abuse prevention is concerned, utilizing a one-year development grant from the National Institute of Mental Health.

As a result of this study, the association now has filed applications with the N.I.M.H. for two grants in order to meet the needs of the area—one dealing with coordination of existing drug education programs and the other providing treatment and rehabilitation for the drug abuser.

Pat Gilliland, association president, said the treatment and rehabilitation program, as proposed, would consist of three major components:

(1) Detoxification and some outpatient services at the University Medical Center.

(2) Outpatient and education-consultation at the Jackson Mental Health Center at St. Dominic's Hospital.

(3) An intake-outreach-resident program to be located in the downtown vicinity.

He said the continued cooperation and services of the Mississippi State Hospital at Whitfield and of the vocational rehabilitation agencies will be a part of the program.

Dr. I. C. Huggins Presented 50 Yr. Pin



Dr. Isaac Clifton Huggins of Jackson was presented his 50 Year Club Pin and certificate at the March 6 meeting of the Central Medical Society. Dr. Huggins has been a member of the society since 1924 and is a 1920 graduate of the Tulane Medical School. Announcement was also made at the meeting of the 50 year award to Dr. Allen Percy Durfey, Sr., of Canton.

Medical Assistants Hold Symposium

A symposium entitled "Gateway to Achievement," sponsored by the Mississippi Society of the American Association of Medical Assistants, was held on March 3 at Primos Northgate Restaurant in Jackson.

Guest speakers were Dr. W. L. Jaquith, director, Mississippi State Hospital at Whitfield, who discussed "Drug Abuse in Mississippi"; Mrs. Pat Maxey, Brandon, Mississippi, writer and lecturer, "The Image You Portray to Your Public"; and Mrs. Elizabeth W. Hampton, CMA, Jackson, president, Central Chapter, AAMA,MS, "Certification: A Great Achievement." Participants were welcomed by Mrs. Thelma VanCloostere, Long Beach, president, AAMA,MS, and the invocation was given by Dr. Guy D. Campbell, Jackson, advisor, AAMA,MS.

Recognizing that many of the problems within offices and organizations are the result of poor communication, an additional feature was "Effective Listening," a program designed to evaluate and increase listening ability. Communication, a two-way process, is dependent on both the effective sending and receiving of information. "Effec-

tive Listening" is one way to improve the communications process by helping the listener select relevant facts and act more efficiently on the information necessary in a given situation, said Mrs. VanCloostere.

Mental Health Regions Changed

Changes in the regional MH/MR map of Mississippi have been approved by the Mississippi Interagency Commission in a restructuring of the various mental health-mental retardation regions. The changes came about through consultation with the various counties and regional commissions which are affected. Regional mental health centers and mental retardation programs already in operation were not affected except in the case of Region 10 (Weems Community Mental Health Center) which formally requested the change in its region.

Old Region 15, consisting of Adams, Franklin, Jefferson and Wilkinson counties, has been eliminated and along with Claiborne county (formerly with Region 9) has been merged with Region 11. Jeff Davis and Marion counties have been transferred from old Region 11 to Region 12. Region 10 has added Leake county (formerly in Region 8) and Smith county (formerly in Region 9), increasing Region 10 from seven counties to nine counties in east-central Mississippi. Old Region 8 has been phased out, with Leake county going to Region 10, as previously mentioned, and Holmes and Attala counties going to Region 6. Yazoo and Madison have joined Region 9.

The changes make Regions 7, 9, 10, and 11 identical to the planning and development districts serving those areas. Finally, Regions 12 and 13 and 14, when taken together, include the same counties as the planning and development district serving Mississippi's southeastern corner.

Region 9 remains the largest region, with a population of 405,624, making it eligible for a second mental health center in addition to the existing Jackson Mental Health Center which presently serves the city of Jackson and a part of outlying Hinds County. According to Dr. Dorothy Moore, program director of the MIC, this is the only area of the state which still does not have a region-wide commission. Counties of the new Region 9 are now in the process of appointing commissioners. "As soon as this is accomplished," according to Dr. Moore, "the Regional Commission will be asked to assist the Interagency Commission in officially subdividing Region 9 into two regions, which will be designated as 8 and 9. This

ORGANIZATION / Continued

will bring the total number of regions in the state to 14."

The new regionalization will become a part of the new state plan for community mental health centers' plan expected to be approved by the Interagency Commission and submitted to federal authorities in March. It will also become a part of the next state plan for the Developmental Disabilities Program.

UMC Announces Faculty Changes

In faculty changes at the University of Mississippi School of Medicine during February, three moved to the rank of professor and five to the associate professor level.

Former physiology-biophysics associate professors Dr. Aubrey E. Taylor and Dr. Howard T. Milhorn are now professors in their department. Dr. Jose Bebin, who was professor of pathology (neuropathology) (part-time), has joined the fulltime faculty as professor.

Those who attained the rank of associate professor included Dr. David Barlow, psychiatry (psychology) assistant professor; Dr. Carl E. Jones, Dr. Allen W. Cowley, physiology-biophysics assistant professors; and Dr. Marion F. Jurko, Dr. Dudley F. Peeler, neurosurgery (research) assistant professors.

Pharmacy School Studies Self-Medication

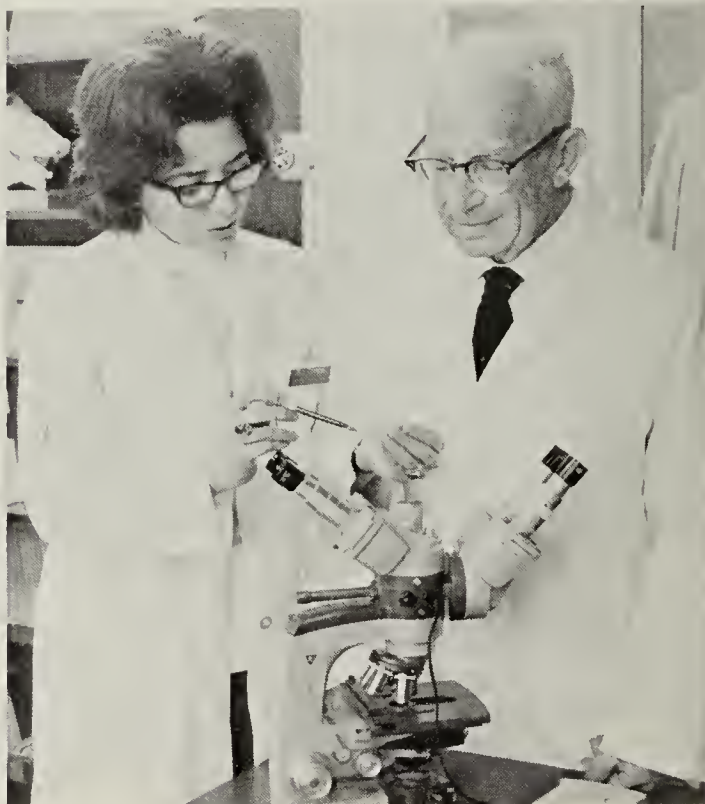
The Mississippi Regional Medical Program, Department of Health Care Administration and Bureau of Pharmaceutical Services will sponsor a conference on self medication May 12. The conference will be open to the public.

Speakers and their topics are: David A. Knapp, Ph.D., Professor of Pharmacy Administration, University of Maryland, "The Consumer and Self-Medication"; Dr. Mark Novitch, Office of the Commissioner, FDA, "FDA Activities Related to Non-Prescription Drugs"; James A. Visconti, Ph.D., Director, Drug Information Center, Ohio State University, "Consumer Self-Medication, the Physician, and the Pharmacist."

This will be an afternoon conference in the University Continuation Studies Center on the Ole Miss campus.

Direct inquiries to: Dr. Mickey C. Smith, Department of Health Care Administration, University, Mississippi 38677.

Dr. Kelemen Is Visiting UMC-VA Consultant



Dr. George Kelemen, director of temporal bone laboratories at the Los Angeles Foundation of Otolaryngology and clinical professor emeritus of surgery at the University of Southern California, was visiting consultant in surgery (otolaryngology) to the University Medical Center and the Jackson VA Center through mid-March. Here the eminent surgeon goes over slides with UMC surgery (otolaryngology) assistant professor Dr. Charlene Stephens. Dr. Kelemen has authored more than 200 publications and has been a major textbook contributor.

1973 Arts Festival Plans Finalized

The Arts Festival, Inc. will present two evenings of stellar entertainment in the Mississippi Coliseum, May 4 and 5. Headliners for May 5 are Vicki Carr, top female vocalist today, and Mac Davis, singer, composer, and guitarist. On May 4, the popular Jackson Symphony Orchestra will perform, and the special attraction for the night will be a Gilbert and Sullivan troupe known as D'Oyly Carte.

In the Municipal Auditorium the Jackson Ballet Guild will offer an evening of ballet May 1, featuring Edward Villela and Patricia MacBride, and the Mississippi Opera Association will present an evening of opera with Renata Tebaldi, May 2.

Among the seminars planned for this year's festival will be a Eudora Welty Celebration scheduled for 10:00, May 2, in the Old Capitol Museum. Miss Welty will present a reading from her works, and in conjunction with the Celebration, the New Stage Theatre will present its adaptation of Miss Welty's book, *The Ponder Heart*. As a part of the film celebration to be held in the Mississippi Coliseum, the ETV productions of *One Time, One Place* and "A Season of Dreams," excerpts from her work as portrayed by Jackson actors, will be shown. A reception will be given for Miss Welty and her friends in the Archives and History Building following the seminar.

Affiliate artists Roni Dengel, actress and dancer, and Gwendolyn Sims, opera singer, will collaborate their talents to present a seminar of the techniques and styles of opera and acting. This "informance" is scheduled for 10:00, Thursday, May 3, in the Education and Research Auditorium.

Two seminars on children's literature will be presented by Jacqueline Jackson, widely read author of children's literature. The first of these

seminars is planned for May 2, at 4:00, in the Education and Research Auditorium. Among Ms. Jackson's works are *Julie's Sloth*, *The Orchestra Mice*, and *The Taste of Spruce Gum* which was an American Library Association Notable Book of 1966.

An exciting addition to this year's festival is the International Pavilion which will be completely different from any other exhibit the festival has ever had in its 10 year history. Germany, Japan, Greece, and Kenya will be the featured countries with one of these being spotlighted each day with live entertainment outside along the midway. Hostesses from each country will be dressed in native costumes and will guide festival goers throughout the exhibit building as they view visual displays of all four countries.

Special features of the International Pavilion will be German graphic art, a German pianist, an authentic Japanese garden and tearoom, Japanese flower arranging, Greek tapestry rugs, Greek dancers in costume, and original art from the African Museum at Southern Methodist University.

As in years past, this year's festival will offer a full bill of entertainment for children. The Youth Pavilion, entitled "Where in the World," will allow children to use their imagination and creativity as they walk and play through a desert, a tropical rain forest, the Orient, Americana, and the Arctic. Along these pathways the youngsters will be able to observe craftsmen working with native crafts of the regions; to see and touch manikins dressed in the typical costumes of the people of the different regions; and, to climb and play on objects designed to represent the architectural features of the regions.

The '73 Coffeehouse, "The Billboard," will feature college art. Artisans in Action will be back in full swing with more than 125 artisans creating objects of beauty and usefulness. This year's festival will also present The Burford Circus of the Performing Arts with an accompanying art show, a noted Shakesperian group, an arts and crafts show featuring Edith Sweet's English brass rubbings, and a Leonardo da Vinci exhibit in the Old Capitol.

Wives of physicians, dentists, and others of the medical community have always been strong supporters of the Mississippi Arts Festival and this year is no exception. Medical wives filling chairman and co-chairman positions on committees are: Mrs. Louis Guy, auditorium; Mrs. Kenneth Reed, coffee house entertainment; Mrs. Robert Hudgins, coffee house entertainment; Mrs. John Mills, coliseum decorations; and, Mrs. Guy Gillespie, Eudora Welty reception.



Many Jackson area physicians' wives are serving in different capacities to prepare for the 1973 Arts Festival. Left to right; standing are: Mrs. Louis Guy, Box Office co-chairmen; Mrs. John H. Mills, Coliseum Decoration Chairman; Mrs. W. Robert Hudgins, co-chairman, Coffeehouse Entertainment; (seated) Mrs. Kenneth Reed, chairman, Coffeehouse Entertainment; and Mrs. James D. Gordon, co-chairman, Coffeehouse Entertainment.

HOUSE OF DELEGATES / Continued

In adopting a report dealing with new federal regulations in regard to blood collection and distribution, the House recommended that operating standards of the American Association of Blood Banks and the American Red Cross be recognized and accepted; that physicians be represented on any national panel set up to advise on procurement or use of blood, and that programs to increase voluntary blood donation be encouraged.

The Council on Long Range Planning and Development will be expanded to include one intern and resident member of the AMA as a full voting member, and for the first time, a medical student took his seat in the House of Delegates. The House set annual dues for student AMA members at \$15.00.

Delegates were informed that an Internal Revenue Service ruling which barred physicians from withdrawing voluntary contributions to their Keogh Law plan prior to disability or age 59½ will be revised to permit withdrawal of such contributions made to a qualified plan prior to Mar. 6, 1972. The AMA had strongly protested the ruling, and the House complimented AMA staff for its "prompt and effective action."

The House selected Dr. George Hoyt Whipple, winner of the 1934 Nobel Prize in medicine, to receive the Distinguished Service Award of the AMA at the 1973 annual meeting in New York. Dr. Whipple, now 94, won the Nobel Prize for his work in pernicious anemia, particularly in the use of liver in treatment. He was also recognized for founding the University of Rochester School of Medicine and Dentistry.

Leslie Townes (Bob) Hope received the Layman's Citation for Distinguished Service in recognition of his contributions to the Eisenhower Medical Center in Palm Springs, Cal., including its 80-acre site, which total nearly \$1.5 million. Mr. Hope had also staged fund raising dinners which had brought another \$3.5 million to the center.

The House recognized Dr. C. D. Taylor of Pass Christian, retiring delegate from the MSMA, and commended him for loyal and outstanding service.

Dr. William E. Lotterhos of Augusta, Ga., former speaker of the MSMA House of Delegates, was elected chairman of the AMA Council on Scientific Assembly.

(This report was prepared by Dr. G. Swink Hicks of Natchez, Delegate to AMA.)

Expression of Delegates. Your AMA Delegates express their appreciation to our own House of Delegates, to the Board of Trustees with whom

we sit at all meetings, and to the general officers for support, assistance, and continuing communication so that we may be properly prepared to represent your wishes and policy positions.

REPORT OF THE BOARD OF TRUSTEES

Organization and Duties. The Board of Trustees is the executive and governing body of the association during vacation of the House of Delegates. It is additionally charged with the duties and responsibilities prescribed by law for directors of corporations. In the discharge of these duties, the Board shall have conducted four meetings during the 1972-73 association year consisting of seven meeting days. Seven officers sit with the Board of Trustees at all meetings. They are the president, president-elect, secretary-treasurer, speaker, vice speaker, and the two AMA delegates.

This annual report includes actions on matters referred to the Board by the House of Delegates and items relating to the management and policy functions which are among the Board's responsibilities.

Referrals from the House of Delegates. Matters referred to the Board of Trustees at the 104th Annual Session and actions by the House requiring further actions by the Board include:

(a) Resolution Nos. 2, 3, and 7. These resolutions concerned the subject of chiropractic and are reported elsewhere in this annual report.

(b) Resolution No. 4. This resolution urged the employment of a management consultant firm to make a survey of the American Medical Association headquarters. At the June, 1972 AMA Annual Session, Resolution No. 80 was introduced which called for a management consultant firm to make a survey of AMA headquarters. The resolution was referred to the AMA Council on Long Range Planning and Development.

(c) Resolution No. 5. This resolution commended Mr. Rowland B. Kennedy for his service to the association and recommended recognition of that service by presentation of a plaque and honorary membership in the association. Mr. Kennedy was presented with a plaque by the association president at the March, 1973 meeting of Central Medical Society (the sponsor of Resolution No. 5). A recommended change in the association's constitution and by-laws to grant honorary membership will be before the Council on Constitution and By-Laws at the 105th Annual Session.

(d) Resolution No. 6. This resolution urged statutory protection for the peer review process. Legislation was introduced for this purpose during the 1973 Regular Session of Mississippi Leg-

islature but not acted upon favorably. It should be noted in this regard that Public Law 92-603 (Medicare and Medicaid Amendments of 1972) which was enacted by Congress subsequent to adoption of Resolution No. 6, provides statutory protection for the peer review process when performed under the Professional Standards Review Organization mechanism.

(e) Resolution No. 8. This resolution urged necessary legislation to require insurance coverage for newborn infants. Such legislation was introduced during the 1973 Regular Session of the Mississippi Legislature. It had passed the House of Representatives and was pending in the Senate at the time this report was written.

(f) Resolution No. 9. This resolution directed the Board of Trustees to work with all third party purveyors of medical care to establish information concerning policy changes, values, charges and treatment of patients between them and physicians. The Board has acted to strengthen and improve relationships with third party payors in Mississippi through the MSMA sponsored Mississippi Foundation for Medical Care, Inc., the Physicians' Advisory Committee to the Mississippi Medicaid Commission and the Peer Review Committee. Activities in these several regards are reported elsewhere in this annual report.

Nominations for the State Board of Health. No vacancies occurred on the State Board of Health in 1972 and it was therefore unnecessary for the House of Delegates to make nominations to the Governor at the 104th Annual Session. Acting on nominations made in 1971 at the 103rd Annual Session, Governor Waller made the following appointments for six year terms: Public Health District 6, Dr. Joseph G. McKinnon, Hattiesburg; Public Health District 7, Dr. W. Moncure Dabney, Crystal Springs; and Public Health District 8, Dr. Wilfred Q. Cole, Jr., Jackson.

CHAMPUS. The association concluded its 16th year as fiscal administrator for CHAMPUS (Civilian Health and Medical Program of the Uniformed Services) in Mississippi. The program continues to grow with an increase in claims volume of 23 per cent and a dollar volume increase of 25 per cent in 1972. A seven-member physician committee serves as the review committee for the program.

Insurance Programs. There are approximately 2,600 contracts among 1,350 members in the association's two major group insurance programs. The association sponsors a hospitalization group with Blue Cross and general accident, disability, health and life groups with the Continental Companies. The latter groups are administered by

Thomas Yates and Company of Jackson and there are some 1,500 contracts in force. Improvements in these contracts during the year have included a \$100,000 Excess Major Medical Plan, an optional 90-day waiting period under the Disability Income Plan and increases in covered room expenses under the Catastrophe Hospital Plan.

Additionally, the association sponsors a professional liability insurance program with the St. Paul Companies. There are about 1,100 participants in this program. Despite authorized increases in premiums during the year based upon actuarial requirements, the program still enjoys a comparatively low premium rate. The Board closely monitors all association sponsored insurance programs.

Budget and Finance. The Council on Budget and Finance met in November, 1972 and prepared the 1973 budget which was presented to the Board in accordance with established procedure. The annual audit shall have been reviewed by the Board prior to the annual session and the budget will be presented to the House of Delegates in the customary manner.

Legislative Program. The 1973 Regular Session of the Mississippi Legislature convened in Jackson on January 2, 1973. The Council on Legislation held meetings prior to and during the session for purposes of organizing and monitoring the association's legislative program. The Council joined the Board in conducting a dinner for members of the House and Senate Public Health Committee during January. Other activities have included production of the weekly legislative newsletter and continuation of the Emergency Medical Care Unit at the Capitol.

The state medical association had a six point legislative program for the 1972 Regular Session: (1) State Medical Examiner Act; (2) unified claim form for physicians' services; (3) health insurance coverage for newborns; (4) legal shelter for peer review; (5) strengthen driver limitation requirements; and (6) prohibit cult of chiropractic from acting as scientific provider of health services.

MECO. The Medical Education Community Orientation program consisting of 10 weeks in a hospital environment with a structured curriculum was approved by the Board of Trustees to continue for the summer of 1973. It was developed as a joint project of the state medical association, state hospital association, and Mississippi chapter of the Student American Medical Association. The students themselves have performed much of the necessary correspondence, administrative

HOUSE OF DELEGATES / Continued

work, and all matching of applicants with hospital vacancies.

Mississippi Foundation for Medical Care. The Mississippi Foundation for Medical Care was organized in August, 1971 as a wholly-owned, voluntary corporation controlled by the Mississippi State Medical Association. As is true with all medical care foundations, the Mississippi organization has two classifications of membership, administrative and participating.

Administrative members are the Trustees of the state medical association, and in them are vested two important authorities. The Board of Trustees appoints the foundation's Board of Directors, assuring that the will of the medical association extends into every organizational and operational aspect of the foundation. The Trustees may also amend the foundation's By-Laws, another measure of physician control. Participating members are those physicians, either members of the state medical association or who are fully qualified for membership, who voluntarily apply for membership to avail themselves of foundation benefits. No dues are charged for participating membership.

During the past year the foundation addressed itself primarily to organizational activities. Membership doubled so that now over 70 per cent of MSMA members in full-time active practice are members of the foundation.

More recently the foundation has begun study and development of professional fee schedules. Preliminary and informal discussions have been held with the president of Mississippi Hospital and Medical Service (Blue Cross-Blue Shield) concerning upgrading of current contracts to a usual and customary fee basis.

With the passage of Public Law 92-603, medical care foundations will become primary mechanisms for implementation of Professional Standards Review Organizations (PSRO). These organizations may be composed entirely of practicing physicians. They will be responsible for review of all professional services provided under Medicaid and Medicare with respect to the appropriateness of such services when provided on an inpatient basis and the necessity and quality of such services. The PSRO review system will be similar in many respects to the Experimental Medical Care Review Organization (EMCRO) system developed by the association under a grant from the National Center for Health Services Research and Development.

The MFMC will conduct an annual member-

ship meeting in conjunction with the 105th Annual Session.

Experimental Medical Care Review Organization. Approximately two years ago, the Mississippi State Medical Association received a grant award of \$369,000 from the National Center for Health Services Research and Development (NCHSRD of HEW) to develop a physician-sponsored system of evaluating the quality of medical care. The funding period is June 30, 1971, through May 31, 1973. The primary goal is to improve the quality of medical care in Mississippi and produce lasting and tangible results.

The first major objective of the EMCRO has been development of a hospital inpatient care review system. This system has involved establishing criteria of care for 70 diagnoses or surgical procedures. Criteria considerations or parameters for selection (criteria tests) include indications for hospital admission, services rendered in the hospital and length of stay. A machine readable coding form has been developed to computer adapt hospital discharge cases for rapid review with computer comparisons to the established criteria of care.

Following computer selection, cases are reviewed first by a nurse (RN) coordinator and then by a reviewing physician. The coordinator makes the determination whether a case should be re-entered as normal data or whether a case should be reviewed further by a reviewing physician. The physician evaluates the findings made by the coordinator and determines which cases will be returned to the hospital for further review and follow-up. The hospital should complete the screening cycle by re-checking the cases for any coding errors.

The EMCRO provides each participating hospital with a questionnaire for documenting its review committee's comments and final decision. This information which a completed questionnaire provides can be used by a hospital as a part of its permanent file or as a guide to initiate corrective action. When this information is returned to the EMCRO, it can be used as a type of "feedback" mechanism to assist in refining the criteria, in revising the input form and in capturing other pertinent information on the case.

The chief educational products of the system are data analyses reports sent monthly to each participating hospital. These reports possess the following characteristics:

(1) Neither patient nor physician are identified other than by code (except upon request).

(2) Reports are printed narrative utilizing spelled out medical terminology.

(3) The reports pertain to the hospital to which sent but compare the hospital to the performance of other hospitals with respect to the criteria of care.

The EMCRO has 35 hospitals participating in its inpatient system. Major activities are refining the criteria, revising the input form and encouraging more physicians and other medical professionals to become more involved in developing the system.

The second major objective of the EMCRO has been development of a hospital emergency room care review system. The development of this system has involved establishing emergency room criteria of care for 20 conditions or diagnoses. A machine readable input form is being developed to computer adapt hospital ER cases for review with computer comparisons to the established criteria of care.

The EMCRO's inpatient and emergency room care review systems are very closely aligned. The goal is to ultimately integrate the two systems so that the entire spectrum of hospital-based care can be reviewed through a single retrospective system.

The third major objective of the EMCRO has been development of a hospital concurrent care review and length of stay monitoring system. This aspect of the overall program was funded by the Mississippi Regional Medical Program as a pilot project for one community hospital over a 14-month period. The basic objective of this system is to monitor care quality as it is being rendered; and also, to monitor length of stay so that an extended stay may be certified as a necessary stay prior to the rendering of the service. This system serves to continuously upgrade the quality of medical care, act as a means of continued education for providers of medical care and at the same time reduce the overall medical cost per patient. This system has relieved the hospital of undesired retrospective denial of payment in services already rendered.

With this system, hospital admissions are assigned a length of stay (PAS—50 per cent) so that the attending physician is aware of this information. A nurse (RN) coordinator monitors the care following the respective EMCRO criteria and the duration of stay using PAS profiles. Any additional stay has to be certified by some physician other than the attending physician. If there is a difference of opinion between the attending and the review physician, then the hospital's utilization review committee is asked to rule on the unsettled case.

The fourth major objective of the EMCRO is

development of a skilled nursing home concurrent care review and length of stay monitoring system. The intent of this system is to extend the same type of concurrent care review and length of stay monitoring for the acute care hospital into skilled nursing facilities.

The procedure will be much the same as that of the acute care hospital with ultimate transfer of patients to different levels of nursing care and/or home health care programs. Review physicians and medical community specialty consultants will serve for both the acute care hospital and the skilled nursing facility. Agreement with one of the ECF's in the state has already been obtained to initiate this program.

MSMA has applied for a third year funding of the EMCRO project. This application for additional funding has been submitted to the NCHSRD of HEW. This year's objectives are:

(1) Continuance of the development of the hospital inpatient care review system.

(2) Continuance of the development of the hospital emergency room care review system.

(3) Continuance of the hospital-based concurrent care review and length of stay monitoring system.

(4) Development of a concurrent care review and length of stay monitoring system for skilled nursing homes.

Journal MSMA. The JOURNAL has concluded its 13th consecutive year of continuous publication with the 156th issue in December 1972. It remains the largest single association-sponsored project and is a team effort among the Editors, Committee on Publications, and JOURNAL staff. The thrust of the JOURNAL continues solidly around Mississippi medicine, the association, and the Mississippi physician.

Total pages and advertising pages and revenues decreased from 1971, and printing costs continued to rise. The page numbers were down because of a decrease in the numbers of scientific articles and editorials submitted for publication. Advertising to scientific-editorial ratio increased from the 1971 level, largely because of decrease in the size of the book. The staff has worked with the Ovid Bell Press to achieve every possible economy in the face of rising costs and lowered revenues, including a change of paper, careful book design, and sparing use of color.

Among the services the JOURNAL contributes to the association by publishing and absorbing costs are: complete program of the 105th Annual Session, Handbook and proceedings of the House of Delegates, Constitution and By-Laws, publication of special issues with reprints, regu-

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lar listing of component medical society officers and meeting dates.

The Board expresses appreciation to the Editors, committee and staff in the production of this vital membership service.

MPAC. The Mississippi Medical Political Action Committee conducted its most active program to date during the past year. A report on expenditures has been made to PAC members and carried in the MSMA report. We urge continued participation in MPAC and AMPAC by all members.

MSMA Membership. At the 104th Annual Session of the association, the House of Delegates took note of a decrease in association membership as reported by the Secretary-Treasurer and urged attention to this matter by appropriate officers of the association. The association's By-Laws charge the president-elect and the three vice-presidents with the responsibility of membership recruitment under the direction of the president. These officers met in Jackson on Oct. 6, 1972. An analysis of the association's annual membership reports for the past several years revealed that a decline in association membership began in 1971, the year the association began making direct billings to members from our central office.

Recognizing the administrative advantages of the direct billing system, your president, president-elect and vice-presidents have acted to establish an annual follow-up system to reach the MSMA member who fails to respond to the direct billing system. Briefly, the system consists of a membership solicitation letter to the former member signed by the president, president-elect and appropriate district vice-president. If no response is received to the solicitation letter, then the appropriate district vice-president arranges for a personal membership solicitation contact to be made. All contact with a former member is coordinated through his component medical society secretary. At the time of this report 34 former MSMA members had rejoined the medical association.

Organization of the Board. One new Trustee, Dr. Gerald T. Gable of Hattiesburg, District 7, was welcomed to the Board during 1972-73. Officers of the Board during the year are Drs. J. G. Davis, Corinth, chairman; James O. Gilmore, Oxford, vice chairman; and Everett H. Crawford, Tylertown, secretary.

REPORT OF THE COUNCIL ON SCIENTIFIC ASSEMBLY

Organization and Duties. The Council on Scientific Assembly is a constitutional body of the

House of Delegates, charged with the responsibility of planning the annual session of the association to include all scientific activities, programming, and the scheduling of annual session events. The council membership consists of the chairman and secretaries of the seven scientific sections and the secretary-treasurer of the association, a total of 15 members.

105th Annual Session. Planning and organization of the 105th Annual Session was initiated in the summer of 1972. The format suggested in the By-Laws and approved by the House of Delegates has been continued with general sessions centered around broad areas of specialty interests. To the maximum possible extent, conflicts in schedules and programming have been eliminated, although as a practical matter, such total elimination is not possible. In some instances, the council has requested and placed essayists from various specialty societies not represented in the Scientific Assembly before section audiences.

We are gratified that at the present annual session, 15 specialty societies have related or concurrent meetings with us. Four medical alumni groups have fraternal and social occasions, and various nonscientific but medically related bodies will meet during April 29-May 3. We continue to believe that providing for and encouraging these related meetings increases the attractiveness of the annual session to the membership and benefits attendance. We are glad to continue support of the Woman's Auxiliary and its concurrent annual session with us.

Medical television on the agenda for the 105th Annual Session will feature films of surgery performed at the V.A. Center in Jackson. Films will be shown on May 1 and 2. We are gratified with the presentations in the scientific exhibit, and we urge every member and guest to view these and the Technical Exhibits.

Technical Exhibit. Your council notes that ethical pharmaceutical firms, suppliers, and others eligible for purchase of space in our Technical Exhibit are declining our invitation to participate in growing numbers. This is not confined to Mississippi, because other state medical associations, major state specialty societies, and national organizations are having the same experience.

Federal drug legislation, changing concepts in marketing, and tighter budgets for advertising have taken a toll of technical exhibit revenues. We have circularized more potential exhibitors than ever before, and we continue to do all things possible to increase this participation.

Your council has investigated the possibility of making the annual session self-sustaining. Based upon past registration it would cost some

\$10-15 per MSMA registrant to conduct the annual session.

Headquarters Hotel. The annual session will be held at the Sheraton-Biloxi for the third year. Based upon action by the Board of Trustees a committee was appointed last fall consisting of the President and Chairman of the Council to review our annual session contract with the Sheraton-Biloxi and to investigate possible new sites for our annual sessions. With respect to the former the Sheraton-Biloxi has implemented certain changes for this year's meeting which hopefully will improve our convention. We urge each registrant to complete the Sheraton "service questionnaire" located in their room so that we may know your views on the services provided by the Sheraton staff at this year's meeting. Pending completion of the Holiday Inn convention hotel in Jackson, the Buena Vista Hotel is the only other facility which can accommodate our annual meeting.

Expression of the Council. Your council on Scientific Assembly is grateful for the support, cooperation, and assistance we have received in planning the 105th Annual Session of the association.

REPORT OF THE COUNCIL ON MEDICAL SERVICE

Organization and Duties. The Council on Medical Service is a constitutional body of the House of Delegates, consisting of nine members, one from each association district, elected for terms of three years each. There are three ex officio members who are our president, president-elect, and secretary-treasurer. The council is charged with the responsibility of ascertaining and studying all aspects of medical care in Mississippi. Under the council's jurisdiction are assigned activities of the association in medical service, emergency service programs, medical care for the indigent, and the work of allied medical agencies and organizations.

The council is assisted by seven committees, five constitutional and two ad hoc. These embrace a wide range of subject areas in our purview of responsibility, including maternal and child care, blood and blood banking, mental health, occupational health, nursing, family planning and college health.

Maternal and Child Care. The committee has continued its study of maternal deaths occurring in Mississippi and meets quarterly for this purpose. Individual committee members regularly prepare case reports for publication in the JOURNAL MSMA. During the year the committee was represented on a Committee on Maternal and Child Care panel discussion at the District VII meeting of the American College of Ob-Gyn.

The committee works closely with the Department of Obstetrics and Gynecology at the University Medical Center. The committee plans to update its "Maternal Health Desk Cards" with the assistance of the Department. The committee continues to distribute the cards to hospitals through chiefs-of-staff and chiefs of ob-gyn services.

The committee's chairman is Dr. William B. Wiener of Jackson and the committee has consultants in medicine, pathology, and anesthesiology.

Blood and Blood Banking. This committee is responsible for oversight of blood and blood banking activities in Mississippi. The committee chairman is Dr. Warren N. Bell of Jackson.

Nursing. This committee was accorded constitutional status at the 104th Annual Session of the association. The committee conducts an active program of liaison with the Mississippi Nurses Association serving as the medical association's representatives on the MSMA/MNA Joint Practice Committee. The chairmen of the two committees attended the National Joint Practice Commission meeting conducted in the Fall of 1972.

During the year the Committee on Nursing has formally responded to the Mississippi Senate Committee on Public Health in regard to nurse education in Mississippi. Additionally, the MSMA/MNA Joint Practice Committee has given extensive consideration to mechanisms for formalizing the role of the clinical nurse practitioner/physician's assistant with a view toward making recommendations to the House of Delegates in this regard. The chairman of the committee is Dr. Tom H. Mitchell of Vicksburg.

Mental Health. This committee is responsible for oversight of mental health activities in the state. The chairman of the committee is Dr. Jerry M. Ross of Whitfield.

Committee on Occupational Health. This committee met in July, 1972. Prior to that time the committee had not met formally since March, 1967 when it concluded its study of "Occupational Health Programs in Small Plants." Based upon a review of present programs and activities within the committee's assigned sphere of interest the committee has unanimously recommended that it be absolved as a constitutional committee of the Council on Medical Service and that the association's activities in occupational health be assigned to an *ad hoc* committee as need dictates. The council concurs with this recommendation.

Committee on College Health (ad hoc). This committee is charged with the responsibility of stimulating interest in health programs and improvement of health facilities on the college cam-

HOUSE OF DELEGATES / Continued

puses in Mississippi. The committee is in the process of surveying the status of student health programs at the state's universities and colleges and a formal report will be published in this regard.

Other Council Activities. The council has continued to monitor the Medicaid Program and is grateful to Dr. Alton B. Cobb, director of the Mississippi Medicaid Commission, for his interest and cooperation in this regard. A member of the council also serves on the Physicians' Advisory Committee to the Mississippi Medicaid Commission.

The council was pleased to review a proposed Regional Medical Program sponsored demonstration project to use allied health professionals to provide medical care under the supervision of physicians in an area with a scarcity of health resources. The council approved the concept of the proposed project and assigned oversight of the project to the Committee on Nursing. Although the future of the RMP is now in doubt with respect to funding of the program after June 30, 1973, the council commends the concept of the project to the House of Delegates.

In other activities the council has appointed a committee to work with the Committee on Trauma of the American College of Surgeons. The council has also acted to furnish guidance in the formation of an interagency type committee to coordinate cancer projects in Mississippi.

Council on Medical Education. Formal development of continuing medical education programs and the certification of such programs as meeting certain "essentials" with respect to format and objectives have been growing in importance during the past decade. During the 1960s the AMA Council on Medical Education developed a program of survey and accreditation for institutions offering courses in continuing med-

ical education on a regional and/or national basis. The "Guide" developed by the council in this endeavor was formally approved by the AMA House of Delegates in 1970, as the "Essentials of Approved Programs in Continuing Medical Education."

During 1971, based upon the interest of local hospitals, medical societies, and voluntary health organizations in development and accreditation of continuing medical education programs, the AMA Council on Medical Education recommended that state medical associations plan and sponsor accreditation programs for continuing medical education activities. "Guidelines for State Medical Association Accreditation of Programs in Continuing Medical Education" were formulated by the AMA Council on Medical Education for this purpose.

Your Council on Medical Education has carefully studied and proceeded with the formalization of a state medical association sponsored program for accreditation of continuing medical education activities in Mississippi for presentation to House of Delegates at the 105th Annual Session. The program will be entirely voluntary as to participants. A subcommittee representing the following specialty groups has worked with the council on this project: Mississippi Chapter, American College of Surgeons; Mississippi Chapter, American Academy of Pediatrics; Mississippi Chapter, American Academy of Family Practice; Mississippi Association of Pathologists; Mississippi Orthopaedic Society; Mississippi Radiological Society; Mississippi Ob-Gyn Society; Mississippi Society of Internal Medicine; and Mississippi EENT Association.

Additionally, recognizing the interest and activity in continuing medical education of the Mississippi Regional Medical Program and the University of Mississippi School of Medicine, the Council asked representatives of the two programs to serve on the project.

Computers Aid Doctors

An experimental North Carolina program of accumulating knowledge on human ills in a computerized data bank may point the way toward a major technological breakthrough that will have far-reaching effect on patterns of practice in medical centers, declares a special communication in the February issue of the *Archives of Internal Medicine*, a publication of the American Medical Association.

Through use of computers, information can be collected and stored in a way that will allow the physician to use all his experience to care for the patient—not just the portion of his experience that he can remember, says the article.

The physician will be able to use his own total experience and that of his medical center, and eventually that of other medical centers to care for his patients. The computer can carry more information in its memory than the doctor can, the author declares.

The report describes an experimental program begun five years ago at the Duke Medical Center, Durham, N. C., to collect computerized data to assist physicians in caring for patients with complex cardiovascular problems.

“We feel that we are now far enough along (at Duke) to begin to feel the power of the data base in the daily practice of medicine. We intend to reach the point where no clinical decisions will be made on the care of any patient with coronary artery disease, myocardial infarction (heart attack) or heart block until the data bank has been searched and outcomes of patients with the same descriptors as the new patients have been given to the physician.”

Once the problem (creation of a data base) has been cracked in a major area in a single medical center, the report says, progress will be rapid. There will be a saving in the cost of patient care, because the care given will be of superior quality. And even greater results will follow when several medical centers begin to pool their data.

“When this system becomes operational, major changes will occur in medical education. The introduction into medicine will not be through anatomy or biochemistry. It will be through the information sciences as they are used in medicine.”

Today, medical education emphasizes diagnosis. In the future it will stress ways of collecting accurate information about the patient's condition. This information will then go into a com-

puter, which can tell the physician what happened to other patients with identical problems. The physician will know exactly what to expect from a given course of treatment.

However, the article points out, these major technological changes won't take place until technology can prove its advantage over the personal skill and knowledge of the physician.

“It will not require elaborate programs to evaluate the success or failure of this program. If physicians not using the system can compete successfully with physicians using it, the program has failed. If successful, the success will be as obvious as that of penicillin treatment of pneumonia.”

The research group believes that the trial program now under way at Duke will point the way toward successful use of computers in diagnosis of human ills.

Diabetic Youth Camp Planned at Hattiesburg

A group of interested citizens in Hattiesburg has been working for the past several months in an attempt to initiate a diabetic camp in Mississippi. Dr. W. J. Huddleston is medical advisor and the camp will be called Diabetic Youth Camp of Mississippi.

This camp will run from June 2 through June 10, 1973, at Paul B. Johnson State Park. Group camping facilities will be utilized with park personnel cooking via planned menus. Cooperation of the Departments of Nursing, Recreation, Medical Technology, and Home Economics of the University of Southern Mississippi has been received.

Initially, 15 to 25 campers will be involved in a full week of camping activities. Primary emphasis will be placed in the following areas:

(1) showing the diabetic child that he can do the same things and eat the same types of food as the “normal child”; and

(2) achieving total chemical control through an ongoing program of diet and insulin therapy.

Funds for this camp are being solicited from local civic groups. Estimated cost will be \$100.00 per camper. No camper will be deprived of this camping experience due to the inability of his family to pay.

For information or referrals, contact Donald E. Woodall, Camp Coordinator, P.O. Box 1691, Hattiesburg, Miss 39401.

FDA Proposes More X-ray Standards

The Food and Drug Administration published in the *Federal Register* on Feb. 28 a proposal to require used diagnostic x-ray machines reassembled and sold after next Aug. 15 to meet the same standard of radiation safety performance that now applies to new equipment made after that date.

The action, taken by adding a declaration of policy to Radiation Control for Health and Safety Act regulations, is aimed at reducing the public health hazard posed by the continued use of older x-ray machines. Up to 40 per cent of diagnostic x-ray machine sales are estimated to be in used equipment, much of which would not meet requirements of the new Federal x-ray standard without substantial modification.

In a related action, FDA is proposing, also by publication in the *Federal Register* Feb. 28, a second declaration of policy prohibiting the installation after Aug. 15 of uncertified major components into an x-ray system comprised entirely of major components already certified as being in compliance with the standard. The policy would assure compatibility of certified system components.

The x-ray standard, issued last year, specifies exposure reduction capabilities that must be incorporated into x-ray machines and components produced after Aug. 15. General purpose stationary machines, for example, must be capable of restricting the beam to the film or fluoroscope receptor size either automatically or by devices to make the equipment inoperable until the beam is restricted manually.

The used equipment policy specifically would require that any person or company that reassembles, rebuilds, or refurbishes diagnostic x-ray equipment after Aug. 15 must do so in a manner that insures that the equipment will comply with the standard even if its major components were made before Aug. 15. The policy would not apply to equipment merely moved and reassembled in a new location without a change in ownership.

The proposed policy against the use of uncertified components in certified systems is based on the fact that two processes are involved in diagnostic x-ray equipment production—the manufacture of components and their assembly at the place of use. Under the policy, persons buying and assembling major components after Aug. 15

would be assured of using components certified as complying with the standard.

Sixty days are allowed for filing comments on the proposals with the Hearing Clerk, U. S. Department of Health, Education, and Welfare, Room 6-88, 5600 Fishers Lane, Rockville, Md. 20852.

Southern Ob-Gyn Seminar Scheduled

The 19th Annual Ob-Gyn Seminar will be held again this year in Asheville, N. C., at the Grove Park Inn, July 22 through July 27.

Broad aspects and subjects in obstetrics and gynecology will be presented and program participation will include the medical schools of North Carolina, Duke, Bowman Gray, and the Medical College of Virginia.

For registration information please contact the Secretary, Dr. George T. Schneider, 1514 Jefferson Highway, New Orleans, La. 70121.

Dr. Stead Is New AHA "Circulation" Editor

Dr. Eugene A. Stead, Jr., Florence McAlister Professor of Medicine at Duke University, Durham, N. C., has been named editor of "Circulation," beginning with the July 1973 issue of the American Heart Association's monthly scientific journal. He succeeds the late Dr. Charles K. Friedberg.

A native of Atlanta, Ga., Dr. Stead received his B.S. degree in 1928 and his M.D. in 1932 at Emory University. He was named chairman of the Department of Medicine at Emory in 1942, and Dean in 1945. Dr. Stead was professor of medicine and chairman of the Department of Medicine at Duke University from 1947 to 1967 when he became Florence McAlister Professor. He also holds the title of Distinguished Professor.

Active in work of the American Heart Association for many years, Dr. Stead has served on its Board of Directors, its Research Committee, Scientific Council and as Chairman of the Ethics Committee. He has been a member of the Editorial Boards of "Circulation" and "Circulation Research." He has received AHA's Citation for Distinguished Service to Research and in 1970, the American Heart Association awarded Dr. Stead the James B. Herrick Award for outstanding achievement in the advancement and practice of clinical cardiology.

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THIS MONTH

The President Speaking 204 "You Win Some, You
Lose Some"

Medical Organization 215 American Cancer
Society, Mississippi
Division, Makes
Referral Changes

Human Sexuality Course Offered

The Institute for Sex Research of Indiana University will offer a summer program in human sexuality July 8-19.

The lecture course will include forums on socio-sexual issues, sex counseling symposia, attitude-reassessment program, and informal workshops.

The \$325.00 fee includes housing. Registration ends June 18.

For more information, write: Institute for Sex Research, 416 Morrison Hall, Indiana University, Bloomington, Indiana 47401.

Medical Group Practice Organization Meets

The Lewis-Gale Clinic, Inc. of Salem, Va., will host the Southeast Regional Meeting of the American Association of Medical Clinics, slated for Friday and Saturday, May 4 and 5, at the Sheraton Motor Inn in Roanoke. The two-day session, covering various phases of the group practice of medicine, will be open to all group practice physicians and administrators in the region.

AAMC's Southeast Region is represented by the states of Florida, Mississippi, Alabama, Georgia, South Carolina, North Carolina, Tennessee, Kentucky, West Virginia and Virginia.

Friday evening's activities consist of registration and a reception-banquet. Saturday will include presentations on AAMC Accreditation and the AAMC Membership Program, a question-and-answer session with the AAMC Executive Director, Mr. James Cobb, and presentations on Satellite Clinics, HMO's, and a Motorized Clinic which brings medical care to the small towns surrounding Roanoke.

Further information or registration details may be obtained by contacting the Program Chairman: Dr. Warren L. Moorman, Lewis-Gale Clinic, Inc., 1802 Braeburn Drive, Salem, Va. 24153.

The American Association of Medical Clinics is the national association representing all forms of medical group practice and group practice physicians. Its membership is broken into five regions, each of which meets annually to discuss the group practice of medicine as it pertains to the region.

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ORIGINAL PAPERS

Cardiology for the Practitioner: 1. The Diagnosis of Angina Pectoris

JAMES R. GALYEAN, III, M.D.
Jackson, Mississippi

PAIN IN THE CHEST arouses fear that heart disease may be present. A tremendous interest in heart disease in the last several decades and the widespread discussion of its symptoms in the lay press and on the television and motion picture screens have made it clear to the public that chest pain may be a harbinger of a life-threatening situation. However, chest pain is not always due to heart disease, or necessarily due to serious disease of any kind. Therefore, familiarity with the various manifestations of angina pectoris is important, not only for the purpose of diagnosing and treating disease, but for the psychological benefit to the patient who may be told that his chest pain is not on the basis of heart disease.

Heberden's classic description of angina pectoris,^{1,2} which should be read and re-read by all practitioners of medicine, cannot be improved upon, and to attempt to do so would be foolhardy. However, for the purposes of this discussion, angina pectoris will be defined as a paroxysmal *sensation* precipitated by physical or mental stress and relieved by rest or nitroglycerin. Although patients with a typical anginal syndrome have been reported who have been found to have normal coronary arteries by selective coronary cineangiography,³ in this discussion angina pectoris will be limited to the symptom complex secondary to myocardial ischemia due to coronary atherosclerosis. Chest pain syndromes, some very similar to angina pectoris, may also be associated

with valvular heart disease and various cardiomyopathies; these will not be included in this discussion.

This is the first of a series of brief reviews of common cardiovascular problems. Although some will include important physiological and pharmacological aspects of the topics discussed, by and large, they are meant to be clinically oriented and of a practical value to the busy practitioner. Comments, suggestions, and criticisms are solicited.

It is important to note that in this definition angina pectoris is described as a "sensation," rather than a "pain." The classic strangling, squeezing, pressing, or vise-like pain may be described by some patients; others find it difficult to describe the sensation clearly and many terms have been applied to it. (See Table I.) Some patients who have effort-related symptoms do not even necessarily describe them as unpleasant, but, for the sake of brevity, angina pectoris will be referred to as a "pain" throughout this discussion.

The pain may occur in many locations. It may begin in the epigastric, retrosternal, or precordial areas and radiate to the shoulders, arms, or hands. Alternatively, it may begin in a more peripheral area and radiate centrally. It is not even necessary that the pain involve the chest.

From the Division of Cardiology, Department of Medicine, University of Mississippi Medical Center, Jackson, Miss.

ANGINA PECTORIS / Galyean

Some patients will have pain limited to one or both arms, the back, or to more highly localized areas, such as an elbow, the nape of the neck, the hard palate, or a tooth. Although somewhat unusual for angina pectoris, pain occurring in these areas should arouse the suspicion of ischemic heart disease whenever clearly related to effort and relieved by rest.

TABLE I

DESCRIPTION OF ANGINA PECTORIS
Tightness
Squeezing
Gripping
Choking
Loss of Breath
Burning
Heaviness
Indigestion
Lump
Bursting
Bloating

The duration of an attack of angina pectoris is short, lasting 4-5 minutes, with a range of 30 seconds to 30 minutes. The pain does not begin or end abruptly, but comes on and subsides gradually. Pain which is fleeting and lasts only a few seconds or pain which lasts for hours is not likely to be angina pectoris, although either may be a manifestation of heart disease. Some patients with coronary artery disease have prolonged periods of pain which may come on at rest as well as with exertion, last longer than 30 minutes, and respond poorly to nitroglycerin. Although this pain may be on the basis of myocardial ischemia, it is better termed "coronary insufficiency" or "intermediate coronary syndrome" than angina pectoris.⁴ Prolonged pain may also be a manifestation of an acute myocardial infarction. Some patients complain of multiple aches and pains, many of which may be highly atypical for angina pectoris. A skillful physician, however, can sift out the typical anginal symptoms.

Table II lists some of the events which precipitate or exacerbate angina, as well as those which relieve it. For a more clear understanding of the pathophysiology involved, a brief review of the factors which determine the oxygen needs of the heart is helpful. The most important determinants of myocardial oxygen consumption (MVO_2) are ventricular wall stress or tension, the heart rate, and the inotropic or basic contractile state of the

myocardium.⁵ (See Table III.) Ventricular wall tension is a direct function of the pressure within the ventricle and the radius or volume of the ventricle, and an inverse function of the ventricular wall thickness. Contractility is difficult to define simply, but refers to the relationship between force development and velocity of shortening of muscle fibers which is largely independent of such factors as filling pressure and cardiac output. Physiologic changes which influence any of these determinants of MVO_2 will influence the demands of the heart for oxygen. With this knowledge one can more readily understand how some of the precipitating factors may bring on an attack of angina. For example, exertion produces an increase in heart rate and blood pressure; myocardial contractility increases because of catecholamine release and increased heart rate. The sum of these events is to increase the need for myocardial oxygen delivery, and in a patient whose myocardial blood supply is limited by coronary atherosclerosis, the imbalance between supply and demand results in ischemia and angina pectoris.

Periods of emotional stress may produce an increase in heart rate and blood pressure, a catecholamine release, an increase in myocardial contractility, and an increased MVO_2 , with a subsequent attack of angina pectoris. Sexual intercourse may precipitate angina because of the increased heart rate, blood pressure, and myocardial contractility which occur. Incidentally, although pain during intercourse is not uncommon, it is a symptom which many patients will not volunteer to the physician. It is important that the physician ask if there is pain during intercourse, as instruction in the proper use of nitroglycerin may allow the patient to continue without discomfort.

TABLE II

<i>Precipitating or Exacerbating Factors</i>	<i>Relieving Factors</i>
Exertion	Rest
Emotion	Erect Position
Sexual Intercourse	Carotid Sinus Massage
Cold or Warm Environment	Belching
Meals	Nitroglycerin
Smoking	Propranolol
Obesity	
Recumbency	
Drugs	
Other Diseases	

Other precipitating events may be similarly analyzed in terms of MVO_2 . In cold weather a higher blood pressure results for any given amount of work, increasing the likelihood of an-

gina pectoris.⁶ A warm, humid environment increases myocardial oxygen needs because of a higher heart rate during any particular level of exertion.⁷ A heavy meal is well known to produce attacks of angina, or to make angina more likely to occur. The role played by altered viscosity of the blood, absorption of certain lipids, or other factors is not clear.⁸ What is known, however, is that during effort following a meal a higher blood pressure and heart rate occur than during similar effort during the fasting state.⁹ Patients who smoke cigarettes tend to have a higher heart rate and blood pressure for any given amount of exertion,¹⁰ as do patients who are obese.

TABLE III

DETERMINANTS OF MYOCARDIAL OXYGEN CONSUMPTION	
Ventricular Wall Stress (Pressure, Radius or Volume, Wall Thickness)	
Heart Rate	
Inotropic or Contractile State	

Angina which occurs after going to bed at night may result from several mechanisms. Simply assuming a recumbent position increases the size of the heart because of increased venous return, and in some patients this may increase the ventricular wall tension enough to cause angina pectoris. In patients in whom heart failure is present the resorption of tissue fluid from the legs and viscera increases blood volume, leading to an increase in ventricular volume and wall tension and increasing the likelihood of angina pectoris. In addition, it is now known that there are periods of sleep, called rapid eye movement or REM sleep, during which most dreams take place. During this period of sleep there are wide swings in blood pressure and heart rate which affect MVO_2 and which may precipitate attacks of angina pectoris, awakening the patient from sleep.¹¹ The mean arterial blood pressure may also decline during sleep, reducing coronary perfusion pressure enough to cause angina pectoris.¹²

Patients may take drugs which importantly influence MVO_2 . For example, many preparations for the common cold contain sympathomimetic amines which may affect heart rate, blood pressure, and contractility. The pernicious habit of prescribing amphetamines for weight loss may have disastrous results in patients with ischemic heart disease. Other pathologic states may exacerbate angina: a common example would be a febrile disease with a tachycardia secondary to fever. Other examples include hyperthyroidism, marked

anemia, uncontrolled hypertension, and various cardiac arrhythmias.

A knowledge of the determinants of MVO_2 also allows the physician a more complete understanding of factors which bring about the relief of angina pectoris. (See Table II.) In the resting state, heart rate and blood pressure fall, decreasing MVO_2 and bringing about the relief of symptoms. Merely sitting erect may relieve angina pectoris in people who develop pain in the recumbent position. The heart probably becomes smaller in the upright position, and the resulting decrease in ventricular wall tension may be enough to relieve pain. Carotid sinus massage also slows the heart and decreases myocardial contractility through vagal reflexes; this may relieve the pain of angina pectoris. However, carotid sinus massage carries some risk and is not a procedure to be undertaken in most people without electrocardiographic monitoring.

Listing belching as a relieving factor in angina pectoris may come as a surprise. However, many patients will attribute the discomfort of angina pectoris to indigestion; the fact that they actually receive some relief of their discomfort by belching¹³ reinforces their belief that the pain is from the gastrointestinal tract, not the heart. This should not lead the physician away from the diagnosis of heart disease. The mechanism of this relief is unknown.

DRUG TREATMENT

Although a later article in this series will deal with the treatment of angina pectoris, a mention of two of the more commonly used drugs is pertinent here. Whether nitroglycerin relieves angina by its effect as a coronary vasodilator is a matter of some controversy, and a discussion of this aspect of nitroglycerin is beyond the scope of this article. However, it is well established that nitroglycerin decreases peripheral resistance, lowering blood pressure and decreasing ventricular wall tension. Nitroglycerin also increases peripheral venous pooling, thus decreasing venous return and ventricular volume with further lessening of wall tension. These effects are an important contribution to the relief of angina pectoris irrespective of the effect of nitroglycerin on the coronary circulation.¹⁴ The beta-adrenergic blocking agent propranolol, one of the newer drugs for the treatment of angina pectoris, decreases MVO_2 by decreasing myocardial contractility and heart rate.

The prompt relief of angina pectoris after the administration of sublingual nitroglycerin is so typical that it has been suggested as a diagnostic test.¹⁵ Horwitz and co-workers studied a group

ANGINA PECTORIS / Galyean

of patients with chest pain of the anginal type and correlated their clinical response to nitroglycerin with the results of selective coronary cineangiography. Of the patients with obstructive coronary artery disease, 76 per cent received prompt relief of pain in three minutes or less after the administration of nitroglycerin; 16 per cent required more than three minutes for the relief of pain, with the interval usually approximately five minutes (range 4-15 minutes); only 8 per cent received no relief. Patients with coronary artery disease who did not get prompt relief of pain tended to have unusually severe angina and multi-vessel coronary artery disease. On the other hand, only 19 per cent of the patients without coronary artery disease consistently obtained relief in three minutes or less, and were more likely to complain of severe or bizarre side effects after taking nitroglycerin. A rule of thumb, therefore, is that patients who receive prompt relief of chest pain after nitroglycerin are much more likely to have coronary artery disease than are those who receive no relief, relief only after a long period of time, or complain of bizarre side effects. An exception to the rule is that there are patients with severe coronary artery disease, usually involving multiple vessels, who receive no or delayed relief of pain after sublingual nitroglycerin.¹⁵

PHYSICAL FINDINGS

Many of the older textbooks of medicine and cardiology state that there are no abnormal physical findings in patients with coronary artery disease. It is true that there are no physical findings which are *specific* for coronary artery disease, but there are abnormal findings which, although non-specific, are suggestive of coronary artery disease and should alert the physician of its possibility. These may be present at all times, but if they are not present at rest but develop during an attack of chest pain, they are even more highly suggestive of ischemic heart disease. Therefore, the physician who can examine his patient during an attack of angina has an excellent opportunity to find highly informative physical abnormalities. An area of the ventricle may be ischemic or scarred and bulge during systole, producing an abnormal, rocking, apical impulse.¹⁶ The systolic click and murmur characteristic of dysfunction of the papillary muscle-mitral valve apparatus may be present.¹⁷ Transient left ventricular failure or changes in ventricular compliance may produce S4 or S3 diastolic gallops.¹⁶ Decreased function of the left ventricle may also prolong the time to

eject its stroke volume, producing paradoxical splitting of the second heart sound.¹⁸

Up to 50 per cent of patients with ischemic heart disease may have a resting electrocardiogram which is normal.¹⁹ Additionally, even if abnormalities are noted on the resting tracing, there are none which are specific for coronary artery disease, including the Q waves suggestive of a prior myocardial infarction.^{19, 20} The recording of the electrocardiogram during pain may reveal changes typical of myocardial ischemia. Additionally, the recording of the electrocardiogram following various types of stress has become a widely used and accepted procedure. One of these tests is the well known Master's test, which requires little in the way of expensive equipment.²¹ Other forms of stress include exercise testing on a treadmill or stationary bicycle. All of these tests have their own advantages and their differences are largely quantitative.²² It is important to remember that false positive and false negative results occur, and that a negative exercise test does not exclude coronary artery disease, just as a positive one does not necessarily mean that coronary artery disease is present.¹⁹ Further discussion of stress electrocardiography is planned for a subsequent review in this series.

The routine chest x-ray may give the physician a clue that heart disease is present, particularly when it reveals cardiac enlargement, an abnormal contour suggesting ventricular aneurysm, or coronary arterial calcification. In patients in whom the etiology of chest pain is in doubt, it is sometimes helpful to x-ray the cervical spine or the gastrointestinal tract, seeking for such diverse causes of pain as hiatal hernia with reflux esophagitis, cholelithiasis, or cervical spine disease.

TABLE IV

DIFFERENTIAL DIAGNOSIS

Anxiety
Cervical Spine Disease
Costochondritis (Tietze's Syndrome)
Chest Wall Syndrome (Musculoskeletal)
Hiatal Hernia with Reflux Esophagitis
Gallbladder Disease
Extrasystoles
Pericarditis
Pulmonary Hypertension

Although there are no laboratory tests which are specific for coronary artery disease, there are risk factors which may be identified in the laboratory. Therefore, the evaluation of patients with chest pain should include a lipid profile with

serum cholesterol, triglycerides, and lipoprotein electrophoresis, fasting and two hour post-prandial blood glucose, uric acid, and hemoglobin.²³

Other risk factors should be noted, including smoking history, history of hypertension, thyroid status, and the presence of obesity. A family history for coronary artery disease is associated with an increased risk of coronary artery disease. However, it is not very helpful in predicting whether a particular patient with chest pain has coronary artery disease.²⁴

Selective coronary cineangiography is the most precise method for the evaluation of patients with chest pain.²⁵ A discussion of coronary angiography will be included in a future article in this series.

The differential diagnosis of chest pain syndromes is large, and a complete discussion will not be undertaken here. Some of the diagnoses more commonly mistaken for ischemic heart disease are listed in Table IV.

SUMMARY

Angina pectoris is a sensation of short duration, typically precipitated by physical or mental stress, and relieved promptly by rest or nitroglycerin. A knowledge of the determinants of myocardial oxygen consumption is helpful in understanding precipitating and relieving factors.

While this manuscript was in preparation, a symposium on angina pectoris was published in a widely circulated cardiovascular journal.²⁶ The range of this symposium is much broader and its discussion of specific aspects of angina pectoris is much deeper than this brief review. All physicians who treat patients with ischemic heart disease are encouraged to consult this symposium, which may be obtained through the American Heart Association. ★★★

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The Treatment of Pancreatic Pseudocysts by Cystogastrostomy

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WHEN ONE SEES a patient with chronic recurrent pancreatitis, the question always arises as to whether the treatment should be medical or surgical. When a large epigastric mass is also present, the treatment should always be surgical. The problem under these circumstances is to choose the proper surgical procedure.

If abdominal exploration shows the mass to be a carcinoma, a Whipple type procedure should be done if feasible. If the patient is found to have pancreatic ductal obstruction, pancreaticojejunostomy is frequently the treatment of choice. In most instances, however, the mass represents a pseudocyst.

Over the years, many surgical procedures have been tried for pseudocyst of the pancreas. Both resection and marsupialization carry high mortality and morbidity rates. The recurrence rate after marsupialization is also around 50 per cent. The procedure of choice, therefore, after the diagnosis has been proven, is simple internal drainage. The mortality and morbidity rates are low and the recurrence rate is about 20 per cent. This can be accomplished by a Roux-en-Y cystojejunostomy or the much simpler cystogastrostomy.

Many pancreatic pseudocysts are quite large and located posteriorly to the stomach. They also are densely adherent to the posterior stomach wall. At the time of laparotomy this is easily seen. The anterior wall of the stomach is opened longitudinally and the cyst pressing on and displacing the posterior wall is noted. It is now important to confirm the diagnosis. A needle is inserted through the posterior stomach wall and into the cyst. The clear fluid is easily aspirated and operative pancreatography performed by injecting contrast material into the cyst and obtaining an

x-ray. If there is no leakage of the radiopaque material, or evidence of ductal obstruction, then the simple cystogastrostomy is performed. This

The author discusses the patient with chronic pancreatitis with emphasis on pseudocyst formation. He covers surgical procedures for this condition and discusses in detail the relatively simple procedure of cystogastrostomy. Two case reports are given to illustrate the procedure.

is done by first making an incision at the site of the needle puncture. The incision is carried through the posterior stomach wall and into the cyst. Next, a cruciate incision is made to enlarge the opening. Excess stomach and cyst wall are trimmed, making the opening more circular. The edges are then run with 2-0 chromic for hemostatic purposes. The anastomosis is then completed with multiple interrupted sutures of 3-0 silk. The anterior gastrotomy is closed and the operation completed.

CASE REPORTS

Case No. 1: Mrs. C. K. This 43-year-old white female was initially seen in the Emergency Room with severe abdominal pain. She stated that she had been treated for gallbladder disease for several months prior to this episode and had frequently had epigastric and abdominal pain, although it was never severe. About four hours prior to this admission, however, she developed fairly severe pain and by the time she came to the Emergency Room, she was having excruciating abdominal pain, more in the upper than in the lower abdomen. The past history revealed she had

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previously had a hysterectomy and left nephrectomy performed elsewhere.

Initial laboratory work on this admission was within normal limits with the exception of a moderately elevated blood sugar, a white blood cell count of 16,200, with a shift to the left, and a serum amylase of 1,680 units. She was treated medically in the hospital for three weeks with a gradual clearing of all symptoms, and was discharged on diabetic management and a low fat diet. She was also advised to abstain from alcohol of any kind. The patient was followed closely in the outpatient department and continued to have episodes of primarily epigastric pain and an occasional episode of lowgrade fever. After about three months, she began to have almost a constant, though not severe, epigastric discomfort.

Examination at this time was similar to previous examinations except that there was a palpable epigastric mass. Cholecystogram was within normal limits. Upper G.I. series showed a widening of the duodenal loop, and displacement of the stomach by a mass in the region of the pancreas. The patient was readmitted to the hospital for surgery. After the usual preoperative preparation, the patient was explored and a large pseudocyst of the pancreas found. After this diagnosis had been confirmed, a cystogastrostomy was performed without difficulty. Postoperatively, the patient did well for five days and then started running a lowgrade fever. X-ray showed that the cyst had not completely obliterated itself. The patient was placed on antibiotics and within seven days was afebrile and asymptomatic. Additional x-rays showed no evidence of the cyst and the patient was discharged on a low fat diabetic diet. She subsequently was followed as an outpatient and there has been no recurrence of symptoms or other complications.

Case No. 2: Mrs. A. S. This 54-year-old white female was initially seen at The Street Clinic in the Department of Internal Medicine with a history of recurrent episodes of pancreatitis. Some several months prior to being seen here, she had been hospitalized elsewhere and was told that she had acute pancreatitis. The initial episode was treated satisfactorily; however, she continued to have bouts of epigastric pain, nausea, and vomiting. At the time she was initially seen, her serum amylase was 750. There was a moderate elevation in her blood sugar and a moderate elevation in her white blood cell count. Initial x-rays showed the chest to be within normal limits. A cholecystogram was also normal, as was an upper G.I. series. The patient responded to medical management and was subsequently followed on

an outpatient basis. During the next six months, she had many episodes of epigastric discomfort, but no real severe pain until about two months prior to surgery. At this time she began to have an almost constant feeling of pressure in her epigastrium, and almost a constant soreness, though no severe discomfort.

On physical examination, the patient was found to have a fairly large epigastric mass which was thought to be a pancreatic cyst. A repeat G.I. series showed marked widening of the duodenal loop and extrinsic pressure on the second and third portions of the duodenum and the posterior wall of the stomach. The patient was, therefore, admitted to the hospital with a diagnosis of pancreatic cyst versus pancreatic neoplasm. She was explored and a large pseudocyst of the pancreas found and the diagnosis proven. An anastomosis between the cyst and posterior wall of the stomach was performed and the patient convalesced postoperatively with no complications. She was discharged on the seventh postoperative day completely asymptomatic. Since that time, she has been followed as an outpatient. Her diabetes had markedly improved to a point now where she is being controlled entirely on a diet and no medication.

SUMMARY

Whenever pseudocyst formation complicates chronic pancreatitis, the procedure of choice is surgical. The relatively simple procedure of cystogastrostomy is discussed, and two cases are reported to illustrate this. ★★★

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Clinicopathological Conference: Miliary Disease of the Lung

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THIS IS THE first UMC admission of this 73-year-old Negro male. He presented to the University Medical Center on April 1, 1972, with a one month history of fever, night sweats, weight loss, progressive weakness, and mucoid sputum production. The patient had been hospitalized elsewhere for five days and at that time, x-rays showed a bilateral pulmonary miliary-pattern. Histoplasmosis and IPPB skin test were negative and multiple sputums were negative for AFB. Past history and a review of systems were non-contributory.

Physical examination revealed a slightly tachypneic Negro man with low grade fever, bilateral basilar rales, mild tachycardia without gallop. No nodes were palpable and there was no hepatosplenomegaly or edema. A Grade II/VI systolic ejection murmur was heard along the left sternal border.

LABORATORY FINDINGS

Blood gases on admission were on room air: pH 7.45, pO_2 57 mm Hg, pCO_2 27 mm Hg. With nasal O_2 at 8 liters per minute, his pH was 7.43, pO_2 77, and pCO_2 31. The admission lab revealed Hgb 10.6, Hct 30.4, WBC 11,600, SGOT 130 IU, Bil. 2.1 mg % with direct Bil. 1.5, Alk. phos. 134 (normal up to 85), creatinine 2.5 mg, LDH 304 IU.

Skin tests applied at UMC were negative for TBC, histoplasmosis and blastomycosis. Sputum cultures were negative for AFB and fungi except for budding Candida. Routine sputum cultures also grew *Staphylococcus aureus*.

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This CPC was presented on Oct. 16, 1972.

Chest x-rays showed dramatic and extensive progressive and parenchymal changes consistent with widespread miliary tuberculosis, sarcoidosis or alveolar proteinosis.

The subject of this University Medical Center clinicopathological conference was a 73-year-old Negro male who had a one month history of fever, night sweats, weakness, weight loss and dyspnea. Other physical findings revealed rales in both bases and x-rays showed a miliary pattern in the lungs with a lytic lesion in his right humerus. Miliary disease of the lungs is discussed in detail.

On admission it was felt that the x-ray and clinical picture made treatment for tuberculosis necessary. The patient was begun on INH, Ethambutal and Prednisolone, and he was also digitalized. He continued to have nightly temperature spikes to 104.8° , despite TBC coverage, and Pyridoxine was added. The staph. aureus was found growing in the sputum, and Dicloxacillin was added to the regimen as was Erythromycin and Streptomycin for further coverage. When his sputum on April 8, 1972, was found to be growing Candida, he was begun on antifungal coverage with Amphotericin B. Steroid therapy was stopped and Keflin was added. On the afternoon of April 8 the patient suffered a respiratory arrest.

DISCUSSION

Dr. Joel G. Brunson: Dr. Guy Campbell will discuss the clinical aspect of this case.

Dr. Campbell: Our patient was a 73-year-old black man who was admitted on April 1, 1972, and died one week later. He was in good health until one month before admission when he developed fever, night sweats, weight loss, progressive weakness and mucoid sputum production. He was hospitalized elsewhere for five days and then transferred here when his disease progressed despite treatment for the miliary infiltration noted on his chest x-ray. Tuberculin and histoplasmosis skin tests were negative and sputum smears for tubercle bacilli were likewise negative. Physical examination at the University Hospital revealed tachypnea, low grade fever, basilar rales, absence of lymphadenopathy and absence of palpable abdominal organomegaly.

Only when we see the laboratory data do we appreciate the severity of the patient's illness. Despite hyperventilation, his arterial oxygen tension is abnormally low indicating a ventilation-perfusion abnormality of significant degree. Eight liters of oxygen by nasal cannula elevated the oxygen tension to a low normal value. Hemoglobin and hematocrit values were low, and SMA-12 revealed an elevation of SGOT, bilirubin, alkaline phosphatase, LDH, BUN and creatinine. Tuberculin and fungal skin tests were repeated with negative results. Sputum smears for AFB and fungi were negative except for budding *Candida*. Routine sputum cultures grew *Staphylococcus aureus*. On the basis of history, physical findings, and chest x-ray, the patient's physicians obviously felt that miliary tuberculosis was the most probable diagnosis and instituted isoniazid, ethambutol, and prednisolone therapy. Because heart failure could not be ruled out, he was digitalized. Although "low grade fever" was described on admission, we see by the protocol that his temperature was spiking to 105° F. nightly despite steroid therapy and antituberculosis drugs. After staph. aureus was isolated, Dicloxacillin, Erythromycin, and Streptomycin were added. On the day he died a positive sputum culture for *Candida* was reported. Amphotericin B therapy was instituted and steroids discontinued, but the patient had a respiratory arrest that afternoon and expired. Would you please discuss his x-ray findings, Dr. Sloan?

Dr. Robert D. Sloan: During the eight days the patient survived in the hospital he had several chest radiographs, and the basic pattern was unchanged during this period. In brief, there is a coarse miliary-like pattern throughout both lung fields. As frequently happens, the presence of gross pathology has been demonstrated, but the pattern does not permit a specific radiographic diagnosis in

terms of etiology. In routine film interpretation one utilizes probability, and in this area either miliary tuberculosis or sarcoid would probably cover over 90 per cent of cases showing a miliary-like pattern. Unfortunately there is a whole host of other etiological agents that make up the remainder of the cases. The clinical course does not go along with sarcoid. He also had a long bone survey which was negative except for what appears to be an early lytic lesion in the distal portion of the shaft of the right humerus. That would be uncommon in miliary tuberculosis and would increase the probability of some other granulomatous agent or a neoplastic process. Unfortunately, this is not an area routinely examined in an autopsy, and in all probability no answer as to its nature will be forthcoming.

Dr. Campbell: That is an unequivocal lytic lesion?

Dr. Sloan: I think that it is a real defect, Dr. Campbell.

Dr. Campbell: Do you see any bone destruction in the skull?

Dr. Sloan: No, just chronic changes in the mastoid secondary to old infection.

Dr. Campbell: In summary, we have a 73-year-old black man who was previously in good health until one month before admission when he developed fever, night sweats, weakness, weight loss and dyspnea. Physical examination revealed rales in both bases and x-rays exhibited a miliary pattern in the lungs with a lytic lesion in his right humerus. Laboratory studies revealed a ventilation-perfusion abnormality, anemia, abnormal liver function studies, and evidence of renal dysfunction. Diseases causing miliary or small diffuse nodular densities throughout both lungs are numerous and may be broadly classified as infectious, neoplastic, cardiovascular, immunologic, inhalational, airways disease, and the inevitable idiopathic classification.

Under infectious diseases, tuberculosis and fungal diseases (particularly histoplasmosis and blastomycosis in our area) would be prime suspects. Staphylococcal disease may start like this but usually progresses to cysts and cavities. *Pneumocystis carinii* in adults is rare and then occurs primarily in patients with serious underlying diseases, especially in those on steroids and/or immunosuppressive therapy. I have seen one patient of the same age with a similar appearing x-ray who had alveolar cell carcinoma but he was not febrile. Lymphangitic carcinomatosis from cancer of the lung, breast, stomach, pancreas, or other organs may have a diffuse nodular pattern. We have had two cases of Hodgkin's disease pre-

senting with a miliary pattern in both lungs. Lymphosarcoma and leukemia both are capable of producing this kind of roentgenogram in unusual circumstances.

Pulmonary edema is a classic cardiovascular manifestation of miliary pattern whether due to intrinsic heart disease or other causes of pulmonary edema. Pulmonary fibrosis secondary to mitral stenosis may mimic this x-ray pattern as may idiopathic thrombosis of the pulmonary venous system.

Rheumatoid disease of the lungs, scleroderma, and nitrofurantoin-induced pulmonary disease may produce a nodular or reticular x-ray pattern under the immunologic classification.

Many inhalational diseases may produce a miliary pattern. Some are hypersensitivity reactions like farmer's lung, bagassosis, and pigeon breeder's lung. Others are pneumoconiotic, such as silicosis, asbestosis, berylliosis, and silo filler's disease.

The idiopathic classification lists several diseases which need to be considered carefully in the differential diagnosis of this case; i.e., sarcoidosis, eosinophilic granuloma, pulmonary interstitial fibrosis, desquamative interstitial pneumonitis, alveolar proteinosis, and Goodpasture's syndrome.

I have listed only a small number of possibilities of the many diseases capable of producing a miliary pattern. The above list is both on possibility as well as to some extent on diseases occurring in this geographic area. Time does not permit an exhaustive listing of all possibilities.

I am sure that the patient's physician felt that miliary tuberculosis was the most likely diagnosis, and I would concur with his impression and decision for antituberculosis treatment. Even the second strength tuberculin test may be negative in a patient with overwhelming tuberculosis; so a negative test carries little significance under these circumstances. I use three antituberculosis drugs in miliary tuberculosis, and to their regimen of ethambutol and isoniazid I would have added either rifampin or daily streptomycin. This gives adequate protection should the tubercle bacillus be resistant to one of the drugs. Streptomycin was added later but it is not clear whether this was for his suspected tuberculosis or a pyogenic infection.

Corticosteroid therapy carries no risk in miliary tuberculosis when the patient is receiving adequate chemotherapy. Indeed, it would have been the drug of choice for some of the diagnostic possibilities I have listed, particularly sarcoidosis, acute pulmonary interstitial fibrosis, collagen dis-

ease, eosinophilic granuloma, desquamative interstitial pneumonitis, as well as a few other diseases. Steroids frequently are added to the treatment of miliary tuberculosis both as a general supportive agent as well as covering for possible tuberculous involvement of the adrenal glands.

If the patient had a fungal disease, however, steroids added considerable risk in the absence of coverage with amphotericin B. An aggressive search for the causative agent is therefore imperative. Ten per cent nebulized saline can be used to produce sputum or a better sputum for study for fungi, tubercle bacilli, or malignant cells. Tracheal suction using a trap for sputum collection is also a worthwhile procedure. In this particular case, I believe a mediastinoscopy would have been rewarding if the etiology was still obscure after the third or fourth day. I would have also recommended a spinal tap, both to seek a possible etiology as well as to eliminate central nervous system involvement in undiagnosed miliary disease. Liver biopsy has the potential for diagnosis particularly in those diseases of granulomatous and neoplastic origin, but may have been contraindicated because of his liver disease.

Candida were grown from a sputum culture and reported the day the patient died. I personally have never seen a case of pulmonary candidiasis. Have you, Dr. Brunson?

Dr. Brunson: Yes, we see it occasionally but usually it is secondary to some other debilitating disease or associated with it.

Dr. Campbell: Is this usually in cases of transplantation or in patients who are on immunosuppressive therapy? Candida are obtained quite frequently from sputum of patients who have no disease; so it always leaves me a little nervous unless it is obtained from blood cultures.

Dr. Brunson: I don't think I have ever seen anything like this pulmonary case that would be pulmonary candidiasis. What we usually see is esophageal candidiasis with scattered pulmonary lesions.

Dr. Campbell: Considering this patient's age, history, geography, physical findings, and laboratory results, my differential diagnosis is limited to tuberculosis, fungal diseases, pneumonia, carcinoma, and one of the idiopathic diseases. I think sarcoidosis would be an unusual disease presenting in a man at age 73; and although such patients may run a low grade fever, I have never seen one with fever of 105°. I think the high fever is also against eosinophilic granuloma, desquamative interstitial pneumonitis, and pulmonary interstitial fibrosis. Carcinoma could produce not only the pulmonary disease but also the

lytic lesion in the right humerus. Again, I am going to use the very high fever as a differential point against malignancy, realizing full well that fever may well accompany malignancy especially if there is bronchial obstruction.

My primary differential is between tuberculosis, fungal diseases, and pneumonia. Aside from rare infections like pneumocystis carinii, the x-ray does not suggest pneumonia. I consider that tuberculosis, histoplasmosis, and blastomycosis are the most likely cause of the patient's problems. Since Dr. Sloan has described a lytic lesion in the right humerus, I choose blastomycosis as the most likely culprit. A bone lesion in this location would be most unusual for tuberculosis or histoplasmosis. Bone involvement is not uncommon in blastomycosis. Miliary involvement does occur in blastomycosis and we have treated three such patients, the last being six months ago. In this latter patient, the diagnosis was made and an aggressive regimen of amphotericin B started within two hours of admission, but the patient died suddenly five days later. I also know of another patient with severe miliary blastomycosis who died suddenly shortly after treatment was instituted.

I have not explained the abnormal liver and renal tests. Possibly hypoxemia, dehydration, high fever, and overwhelming toxicity singly or in combination may have accounted for these changes. It would not be illogical to consider that the disease process in the lungs also involved the liver and kidney. Our patient referred to above, who died after five days of therapy, also had elevated SGOT, alkaline phosphatase, LDH, and BUN. Admission blood gases were almost identical to the patient we are discussing today.

Question: What are the odds of finding tuberculosis organisms in a patient with miliary disease?

Dr. Campbell: They are hard to find, because frequently such patients have no cough or sputum. Using tracheal suction and nebulized 10 per cent saline to produce cough and sputum increases the yield. Washings obtained at bronchoscopy would also increase the diagnostic yield as would a mediastinoscopy and liver biopsy. I don't have a rough figure, but I would think in miliary tuberculosis using the above methods that maybe you could come up with routine AFB in 40 to 50 per cent of patients.

Question: Is lung biopsy in a patient of this type, if you don't have the diagnosis, very dangerous?

Dr. Campbell: Yes, I think it would be dangerous. Needle biopsy carries some risk in a man that you are having trouble oxygenating at 8 liters

of oxygen a minute. If you get a pneumothorax (which you stand a good chance of getting with this kind of procedure), then you have really compromised his respiratory reserve and you may lose him, especially at the age of 73.

Question: Then would you give us, in order your preference for seeking a tissue diagnosis or procedure that they didn't get around to because this patient didn't live long enough?

Dr. Campbell: Well, I certainly would like to have had a mediastinoscopy and bronchoscopy. We would have done gastric washings for culture for tuberculosis, but smear and culture for fungi. We have made the diagnosis of blastomycosis on smears of gastric washings in the absence of other findings. Finally, a liver biopsy may have shown granulomatous or mitotic disease. The abnormal liver studies may have contraindicated this procedure. Urine studies for tuberculosis and fungi are also of value.

Dr. W. Treadwell: The only case I've seen with this much pulmonary involvement and history of sputum production that couldn't be diagnosed from the sputum was Wegener's granulomatosis and it looked very much like this. Sputum cytology for malignancy in this kind of patient will be positive in roughly 90 per cent of cases, but our case of alveolar cell carcinoma was not. The other thing that bothers me is the report of "budding Candida"; I've seen blastomycosis interpreted on cytologic preparations as Candida. Another thing that bothers me is that this patient was adequately oxygenated and I don't believe that respiratory insufficiency is what killed him, and I would think in terms of a systemic disease and a catastrophe related to that. Two things that one would always think about in this category of patients are the high risk of pulmonary emboli (you can say about one-half of the people that are sick are going to have them which may or may not kill them), and the other thing is that they gave this one steroids and he had hepatitis. Then when they stopped the steroids he died, and I don't know if that was the cause or not. What I'm trying to lead up to is that he could have had adrenal involvement by whatever this primary process was and when they gave him steroids and then stopped them, that may have killed him.

Question: In disseminated blastomycosis, how often do you get hepatic involvement?

Dr. Campbell: Dr. John Busey was chairman of a Veterans Administration study committee on blastomycosis. In a retrospective study of 198 patients with a proved diagnosis, 25 died of blastomycosis and were autopsied. He found the liver was involved in 9 patients and the kidneys in 9

patients. Miliary involvement should enhance the involvement of other organs with the infection. Incidentally, miliary involvement is really quite uncommon in blastomycosis. A case report of blastomycosis this year stated that their case was the only published report of miliary blastomycosis in the literature in the past six years.

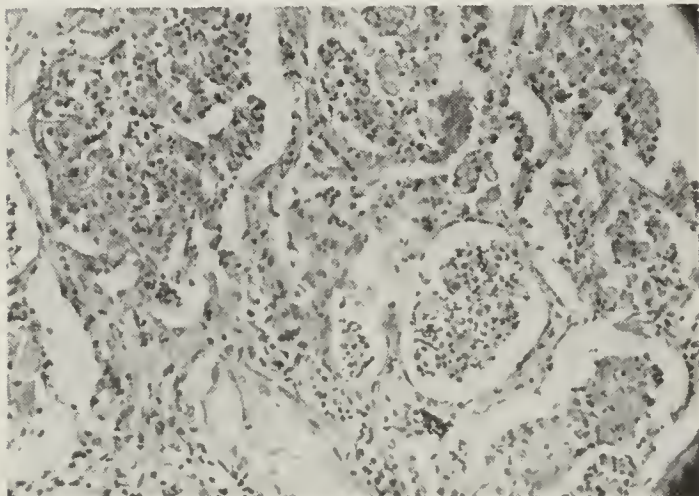


Figure 1. Low magnification of portion of lung showing extensive areas of necrosis and numerous organisms in the alveoli.

Dr. Brunson: Dr. Sloan is correct with reference to the bone lesion, in that it is an area that we don't examine routinely. There are, however, blanks on the autopsy permits that may be used to request special examinations. It would be of most interest to know what that is, but unfortunately the autopsy permission was limited to the thoracic cavity. So I can only report on the lungs, and will be unable to say anything about the liver or the kidneys. We can say that the lungs were certainly in a very bad way. They weighed about 4 times the usual weight; that is about 1400 grams each. They were full and at the same time not edematous in the sense of exuding free fluid. But they were sort of pasty and nodular, with nodules of varying sizes containing depressed centers indicating necrotic areas; a more or less confluent necrosis of both lungs. I have a couple of slides which simply point out these changes wherever one looks in the lung, almost every alveolus is full of blastomycosis. In some areas this is associated with a sort of aborted granuloma formation, that is, there are a number of giant cells and there are extensive areas of necrosis, and in and around many of the lesions there are extensive thrombi in many of the vessels. (See Figure 1.) The next figure also shows a segment of the lung

again, demonstrating myriads of blastomycotic forms, yeast forms, some of which seem to be budding. (See Figure 2.) It is amazing to me just to see that almost any section of the lung is absolutely packed with organisms of this type, and I think the patient probably died of a pure respiratory death. We did receive, on the day of his death, a sputum specimen for cytology examination and when this was examined, it showed the blastomycosis organisms. So perhaps in the test or diagnostic workup it might be advisable to secure a decent sputum specimen for cytology and there are methods of obtaining such and obviating some of the problems with respect of *Candida* and getting down to the deep seated problems that reside in the alveoli.

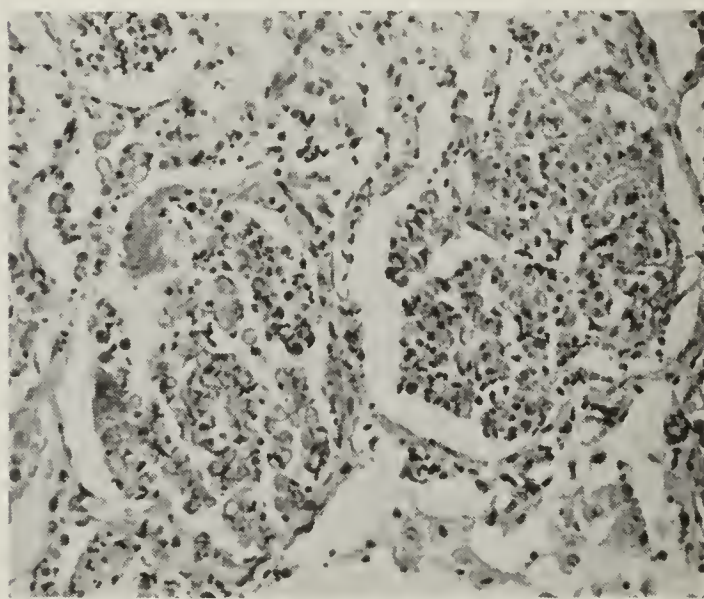


Figure 2. Higher magnification of lung showing numerous blastomycosis organisms.

At any rate, this patient had pulmonary blastomycosis and one can only speculate what role the steroids played in disseminating this so widely in both lungs. Also, just what his innate immunologic status may have been and what he might have been engaged in occupationally would also be of interest. I think it would be quite interesting to know just what that bone lesion might have been and it would also be of interest to know whether this was disseminated to the liver and perhaps to the other organs. There were some pulmonary adhesions but these were not very striking.

Dr. Campbell: Was there any bone marrow gotten at all?

Dr. Brunson: No.

Dr. Campbell: Have you seen blastomycosis involve the liver or kidneys as an active process?

Dr. Brunson: I don't recall seeing it in either one of those organs. Do you Dr. Dawson?

Dr. James R. Dawson: No.

Question: What about adrenals?

Dr. Brunson: No, histoplasmosis quite commonly does affect the adrenal gland, but I've not seen blastomycosis do this. Of course, we don't see that much blastomycosis. Dr. Campbell, do you have any closing comments? What do you think of the steroids?

Dr. Campbell: I'm not sure that the course of this disease would have changed if they had start-

ed amphotericin the day of admission. Our patient died despite very aggressive treatment from the day he was admitted and his x-ray didn't look as bad as this one. Certainly I think if he hadn't been quite this sick that steroids would have worsened his condition and sped him along if the diagnosis had not been picked up in a short time. There is an increased incidence of fungal infection in patients on steroids, and one of our patients with miliary blastomycosis was on steroids for asthma. ★★★

2500 North State Street (39216)

In the days of knights and chivalry, King Arthur one day summoned Sir Lancelot and said, "I'm leaving on a journey. . . . I trust you above all men and I am entrusting you with the key to Guinevere's chastity belt." Lancelot replied, "I'm touched by your faith in me. I promise to protect her with my very life." Before an hour had lapsed, clippity clop, clippity clop, up gallops Sir Lancelot to the King's castle on his pure white charger, and announces breathlessly, "My Liege, my Liege, I am sorry to disturb you so. but you gave me the wrong key. . . ."—*Hawaii Medical Journal*.

Radiologic Seminar CXXVII: Jejunal Diverticulosis

CLYDE SMITH, M.D.
Greenwood, Mississippi

JEJUNAL DIVERTICULOSIS is a rare affliction of the gastrointestinal tract. The incidence of the diagnosis is directly related to the intensity of the search for its presence.¹

These diverticula are usually acquired. They occur on the mesenteric border of the intestine; commonly at sites of vascular penetration of the mesenteric attachment. They usually are thin walled sacs composed of mucosa, submucosa, and peritoneum. They occasionally contain muscle. They range greatly in size, from less than 1 cm. to over 10 cm., with necks of varying width. Most of the diverticula occur in the proximal jejunum.

These diverticula are demonstrated by barium studies of the small intestine.² They appear as globular masses of barium. Depending on the projection, the neck or connection with the lumen of the small bowel may or may not be demonstrated. The globular masses are usually smooth, and almost never show mucosal folds. When numerous and large, the diverticula may produce marked distortion of jejunal motor function.

Another interesting radiological finding in jejunal diverticulosis is that of fluid levels in the larger diverticula,³ demonstrated on erect films of the abdomen, and simulating intestinal obstruction.

The patients can usually be divided into four groups on the basis of symptomatology:⁴ (1) those who have no symptoms; (2) those who have mild chronic indigestion; (3) those who suffer an acute abdominal catastrophe due to a complication of diverticulosis; or (4) those who present with malabsorption of various substances, particularly Vitamin B₁₂.

The incidence of complications is relatively low. The most common complications are acute mechanical intestinal obstruction and diverticulitis. The two are sometimes related; particularly in patients with numerous and large diverticula, a syndrome similar to the blind-loop syndrome occurs. These patients develop macrocytic mega-



Figure 1

Sponsored by the Mississippi Radiological Society.



Figure 2



Figure 3

loblastic anemia usually associated with steatorrhea. This condition is thought to be caused by the great increase in intestinal bacteria within the diverticula, which absorb the B_{12} and prevent its absorption by the patient.

Most patients with anemia can be treated medically with diet, vitamins and antibiotics. Surgery is indicated when medical management of the anemia fails. Surgery is also usually indicated with the other complications.

Presented are two cases: Case No. 1 is that of a 68-year-old white female with numerous diverticula but no symptoms referable to the diverticula. (See Figure 1.) Case No. 2 is that of a 68-

year-old male who shows numerous and large diverticula with some decrease in transit time of barium through the G.I. tract. (See Figures 2 and 3.) This patient also had macrocytic anemia and steatorrhea. ★★★

1605 Strong St. (38930)

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3. Strömme, Aksel: Fluid Levels in Diverticula of Small Intestine. *Brit. J. Radiol.* 29:574-576, Oct. 1956.
4. Bockus, Henry L.: *Gastroenterology*, Vol. 11.

QUITE A SWITCH

Bumper sticker reminiscing the good ole days: "Remember when air was clean and sex dirty?"

—*Hawaii Medical Journal*



The President Speaking

"You Win Some, You Lose Some"

CHARLES R. JENKINS, M.D.
Laurel, Mississippi

IN MY LAST editorial as president, I thought it would be meaningful to summarize our legislative record for 1973. Many bills pertaining to health were introduced in the Mississippi State Legislature and those of you who conscientiously peruse the Blue Sheet may already know the score. To them these remarks may not be too informative, but to others it may be interesting to know how the Mississippi State Medical Association fared with legislation it endorsed or opposed.

Since 1895 when Daniel David Palmer, an Iowa grocer, "adjusted" Harvey Lillard's back and "cured" his deafness of 17 years' standing we have had the cult of chiropractic to contend with. Before this year Mississippi and Louisiana were the only states where chiropractic was not licensed. Now only Louisiana remains. The 1973 Mississippi State Legislature passed a chiropractic licensure act which was an amended version of Senate bill 1993 that had been worked out in the joint conference committee. While it is not a good bill it is much better than the bill we, at one time, thought would be passed. It does: (1) prohibit advertising; (2) promulgate rules for operation of x-ray machines by chiropractors; (3) requires chiropractors to pass basic science examinations, said examination to be approved by the State Health Officer; (4) requires chiropractors to use no other designation than chiropractor; and (5) prohibits them from participating in Workmen's Compensation and Medicaid.

In my opinion the reason the chiropractors agreed to this bill was that it gave them the proverbial "foot in the door" and you can be assured they will lobby just as hard in ensuing years to remove some of the bill's restrictions.

While the chiropractic fight received most of the publicity, other important bills backed by the MSMA that were passed included bills to provide insurance coverage for newborns, permit retirement of x-rays after seven years, and to establish a school of dentistry at the University of Mississippi Medical Center.

However, we failed to obtain passage for five of our most important bills. These were: (1) to establish the Office of State Medical Examiner; (2) to require uniform insurance claim forms for physicians' services; (3) to provide legal shelter for peer review; (4) to create a department of mental health headed by a professional and (5) to create an emergency medical services act to upgrade emergency room and ambulance service.

Your Council on Legislation and the headquarters staff along with many officers and members worked very hard with the legislature to get laws which were beneficial to the public health passed. They cannot do the job alone. Let every MSMA member consider himself a committee of one to meet with his legislators during the summer and fall and impress upon them the importance of passing constructive health legislation.

When we total up the score it is easy to see that we lost more than we won, but hopefully this trend can be reversed. In the words of the loyal sports fan—"you just wait till next year." ★★★

JOURNAL OF THE
MISSISSIPPI STATE
MEDICAL ASSOCIATION

VOLUME XIV, NUMBER 5
MAY 1973



EDITORIALS

Committee on Fee Schedules Issues Status Report

The Committee to Study and Develop Professional Fee Schedules of the Mississippi Foundation for Medical Care, Inc. held its initial meeting in Jackson on Jan. 25, and a subsequent meeting was held on Mar. 21. The committee is composed of Drs. Joseph B. Rogers, Oxford; Kenneth P. Pittman, Jackson; Tom H. Mitchell, Vicksburg; Whitman Johnson, Clarksdale; Jack Atkinson, Brookhaven; and Gerald Gable, Hattiesburg.

At its initial meeting on Jan. 25, the committee arrived at an operational format to achieve its goals and later met individually with Mr. George Butler, president, Mississippi Hospital and Medical Service, and Mr. Bob Gunter, manager of Travelers Medicare for Mississippi, to discuss the feasibility of adopting a statewide fee schedule of usual, customary and reasonable fees for physicians' services. Both gentlemen expressed interest in further discussions in this regard. More specifically with respect to Medicare, Mr. Gunter advised the committee that the program would be receptive to establishing a uniform schedule of fees throughout the state in lieu of the present two area fee base if this was the desire of the medical profession. The committee is presently examining data in this regard to determine all possible ramifications involved in adoption of a statewide fee schedule.

The committee has requested all MFMC members to forward their schedule of fees posted in accordance with Phase II requirements of the Price Commission and the IRS. In addition to fees, members were requested to furnish informa-

tion on their type of practice, city or town, and the frequency of procedures performed. The response has been gratifying and certain basic information and data have already been computed from these initial replies. At this time the committee and staff are in the process of preparing a listing of usually performed procedures by specialty, using coding and nomenclature from the 1969 California Relative Value Index. This "short list" of procedures will be mailed to all MFMC members and data obtained therefrom will be used to verify, strengthen and standardize the data base obtained from responses to the committee's initial inquiry. Subsequently, the committee will meet with representatives from all specialty groups to examine and discuss the data obtained from the study with the view of arriving at a final product.

With the formulation of a statewide usual, customary and reasonable fee schedule, the Mississippi Foundation for Medical Care will have one of the important tools necessary to reach those foundation goals outlined at the MFMC Board of Director's meeting last August as follows: (1) peer and utilization review development and support; (2) definition of quality care standards; (3) study and development of professional fee schedules; and (4) serving as an intermediary between the physician and third party payors/health insurance carriers.

GERALD P. GABLE, M.D.
Hattiesburg, Miss.
Chairman, Committee to
Study and Develop
Professional Fee Schedules



LETTERS

SIRS: We enjoyed the recent article on arterial blood gases by Morgan and Williams (April 1973) and because of increased utilization of these measurements, my associates and I feel that a brief review of the important causes of arterial hypoxemia is in order.

There are four causes of arterial hypoxemia: (1) Hypoventilation, (2) diffusion abnormalities, (3) shunt, and (4) ventilation/perfusion ratio inequality.

HYPOVENTILATION: If ventilation is reduced, alveolar hypoxia occurs and, therefore, arterial hypoxemia must follow. *Hypoventilation is always accompanied by a raised $p\text{CO}_2$* because it interferes with the elimination of carbon dioxide as much as with the uptake of oxygen. It is clear that hypoxemia due to hypoventilation usually occurs when the lung itself is normal. Causes include respiratory center depression by drugs (most common), diseases affecting the nerve supply to the muscles of the thorax, or the muscles themselves, injury to the chest wall, or upper airways obstruction. An important clinical feature of hypoventilation as a cause of hypoxemia is that because the lung is usually normal, the prognosis is excellent if the precipitating cause can be removed.

DIFFUSION: Lung disease may impede the diffusion of oxygen across the alveolar membrane. Conditions such as diffuse interstitial fibrosis, pulmonary venous hypertension, sarcoidosis, asbestosis, and alveolar carcinomatosis are associated with apparent thickening of the alveolar blood gas barrier, and it is possible that some of the arterial hypoxemia in these patients may be caused by defective diffusion. Resting and exercise arterial blood gas determinations have been used in the past to exclude diffusion as a significant cause of arterial hypoxemia in patients who are suspected to have this abnormality. In the normal resting lung, as well as in the diseased lung, there are great reserves of diffusion, and these reserves are implemented during exercise but stress the diffusion ability of the lung only when it is severely curtailed. It is clear that even if the time available for diffusion is reduced to one-third of normal, the normal lung, and indeed the abnormal lung, may still be able to oxygenate blood effectively. *Failure to demonstrate hypoxemia with exercise must not and cannot be used to exclude significant diffusion impairment for it has been shown that at least 50 per cent of the diffusing surface must*

be impaired before the exercise arterial value falls significantly.

SHUNT: In disease, right-to-left shunts may result in severe hypoxemia. The most common group of patients to which this applies are those with congenital heart disease and with pulmonary disease such as atelectasis, pulmonary edema and abnormal venous connections. By giving a patient pure oxygen to breathe, true shunt can be distinguished from other causes of hypoxemia because only in this condition does hypoxemia remain. True shunt is defined as all blood which finds its way into the arterial circulation without going through ventilated lung. Pure oxygen abolishes the hypoxemia of hypoventilation, diffusion impairment, and ventilation perfusion inequality.

VENTILATION/PERFUSION INEQUALITY: By far, the most important cause of arterial hypoxemia is a mismatch between the distribution of ventilation and blood flow in the lung. It is technically difficult to quantitatively assess, yet it is the mechanism responsible for most of the hypoxemia seen on the general medical ward. For example, the hypoxemia of chronic obstructive lung disease, pneumonia and pulmonary fibrosis. In the normal lung, the depression of the blood PaO_2 by ventilation/perfusion ratio inequality, amounts to less than 5 torr, and is, therefore, hardly measurable. It is of the same order as that caused by the shunt effect; however, in disease, the mechanism is often of great importance, frequently cutting the arterial pO_2 to half its normal value. In addition, the ventilation/perfusion inequality also interferes with carbon dioxide transfer so that carbon dioxide retention may follow. In the absence of sophisticated techniques, it may be difficult to differentiate ventilation/perfusion abnormalities from other causes of hypoxemia. *Significant hypoxemia with little or no measurable true shunt in the absence of normal oxygen transfer is consistent with a V/Q abnormality if hypoventilation can be excluded.*

The effect of exercise itself is of very limited value in distinguishing between the various causes of hypoxemia. In hypoventilation, hypoxemia typically becomes more severe on exercise because the oxygen uptake is increased and the lungs respond slowly to the added ventilatory drive. *Only the patient with profoundly impaired diffusion will lower his oxygen tension value with exercise in response to increased oxygen demand and to increased pulmonary capillary transit time.* A true shunt (which remains a constant proportion of the cardiac output on exercise) causes more hypoxemia because the pO_2 of mixed venous blood and, therefore, the shunted blood is



Book Reviews

Current Diagnosis and Treatment. By Marcus A. Krupp, M.D., and Milton J. Chatton, M.D., and associate authors. 996 pages, with illustrations. Los Altos, California: Lange Medical Publications, 1973. \$12.00.

The authors, in their preface, state that this book is not intended to be a textbook of medicine. It is not. They also state, "it is intended to serve the practicing physician as a useful desk reference on widely accepted techniques currently available for diagnosis and treatment." It accomplishes this in an admirable form. Pertinent references are available for each disorder. For the most part, these references are to readily available literature. This book has been produced annually, but will be produced biennially following this year.

Following sections on general symptoms and on electrolyte balance, the book is divided into chapters covering diseases of each system of the body and infectious disease. Topics such as antibiotics, poisons, medical genetics, and immunologic disorders are other chapter headings and receive adequate coverage.

One outstanding feature of this publication is its appendix. It includes information that is not

usually found in standard medical texts, including such items as immunization of adults for overseas travel, medical precautions for overseas travel and a discussion of laboratory tests and their interpretation. There is even a nomogram for the determination of body surface area. Numerous charts and tables are scattered throughout the book. One particularly useful table is that entitled "Drugs Interfering Directly With Chemical Tests."

Obviously, a book of this size could not be complete; however, I believe the authors have done a remarkable job in culling extraneous material and including the pertinent and significant points for each disease condition. The authors also usually give a complete treatment regimen for each condition, so the physician does not have to look up dosages in another book.

One interesting feature is that this book includes so many of the common illnesses that are overlooked in the larger textbooks of internal medicine. Therefore, one has here a ready source to the current treatment of these conditions. I believe the authors have succeeded in producing an excellent desk reference for the practicing physician.

DAVID M. OWEN, M.D., Hattiesburg, Miss.

lower. The hypoxemia of a patient with ventilation/perfusion inequality may become worse, improve or remain unchanged depending upon the ventilatory response and the pattern of uneven distribution in the lung.

As regards normal values, in the healthy adult an arterial oxygen tension above 80 is considered normal while breathing room air. Hypoxemia is present then if the arterial oxygen tension is below 80 torr. There are two exceptions to this: a) The normal newborn infant has an arterial oxygen tension range of 40-60 torr, b) the normal arterial oxygen tension decreases with age. A general guideline is to subtract 1 torr from the minimal 80 torr level for every year over 60. This means that one would accept as normal a minimal oxygen tension of 70 torr in a 70-year-old patient and 60 torr in an 80-year-old patient.

Finally, many studies have demonstrated that the arterial oxygen tension may be low in patients with polycythemia vera who have no de-

monstrable co-existent cardiopulmonary disease; therefore, a low pO_2 (even with exercise) will not by itself separate primary from secondary polycythemia. The probable cause of arterial hypoxemia in this condition is thought to be related to thromboses in pulmonary vessels.

With proper calibration and standardization of blood gas equipment in use today, there is usually no discrepancy between reliable results and one's clinical appraisal; however, when blood gas determinations do not agree with clinical judgement we are more likely to re-evaluate the latter.

JOE R. NORMAN, M.D.

CAMILLA A. PROCTOR, M.D.

A. WALLACE CONERLY, M.D.

Division of Pulmonary Diseases

Department of Medicine

University of Mississippi

Medical Center

Jackson, Miss.



NEW MEMBERS

BROOKS, JOHN M., JR., Greenville. Born Rushton, La., Aug. 20, 1939; M.D., University of Tennessee School of Medicine, Memphis, Tenn., 1964; interned one year with City of Memphis Hospitals; surgery residency, University of Tennessee July 1, 1968-June 30, 1972; fellowship in peripheral vascular surgery, Baptist Hospital, Memphis, Tenn., six months; elected by Delta Medical Society.

CARY, ELIZABETH R., Jackson. Born Huntington, W. Va.; M.D., Tulane University School of Medicine, New Orleans, La., 1963; interned one year, Parkland Hospital, Dallas, Tex.; pathology residency, Ochsner Foundation Hospital, New Orleans, La., July 1, 1965-June 30, 1970; pathology residency, Charity Hospital, New Orleans, La., July 1, 1964-June 30, 1965; elected by Central Medical Society.

SMITH, J. GEORGE, JR., Jackson. Born Poplarville, Miss., Mar. 6, 1941; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1965; interned Parkland Hospital, Dallas, Tex., one year; surgery residency, University Medical Center, Jackson, Miss., 1968-69; otolaryngology residency, same, 1969-72; elected by Central Medical Society.

SUZUKI, AKIO, Jackson. Born Numazu, Japan, Nov. 7, 1929; M.D., Tokyo Medical and Dental University School of Medicine, Tokyo, Japan, 1956; interned Tokyo US Army Hospital, Tokyo, Japan, one year; thoracic and cardiology residency, St. Vincent Charity Hospital, Cleveland, Ohio, 1958-64; fellowship in cardiovascular surgery, same, 1964-68; chief residency, general surgery, University Medical Center, Jackson, Miss., 1968-69; elected by Central Medical Society.

WARREN, GLEN CURTISS, Jackson. Born D'Lo, Miss., Nov. 2, 1931; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1961; interned Wilford Hall USAF Medical Center, San Antonio, Tex., one year; neurosurgery residency, University Medical Center, Jackson, Miss., Jan. 1, 1964-Dec. 31, 1968; elected by Central Medical Society.

WILLIFORD, JAMES S., Hattiesburg. Born McComb, Miss., Nov. 3, 1939; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1966; interned University Hospital, Jackson,

Miss., one year; orthopaedic surgery residency, same, July 1, 1966-June 30, 1970; elected by Central Medical Society.



DEATHS

No deaths were reported this month.



POSTGRADUATE CALENDAR

THE MISSISSIPPI POSTGRADUATE INSTITUTE IN THE MEDICAL SCIENCES

April 23-27, 1973

RADIOLOGY INTENSIVE COURSE

University Medical Center, Jackson

April 23-27, 1973

Sponsored by The University of Mississippi School of Medicine, with the support of the Mississippi Regional Medical Program

Coordinator:

Robert D. Sloan, M.D., professor of radiology and chairman of the department, The University of Mississippi School of Medicine

This one-week intensive course, the final series offering of the academic year, included practical observations of radiologic procedures in the diagnostic, therapeutic and isotope areas, as well as sessions dealing with equipment, techniques, artifacts and radiation safety.

Registrants are all enrolled in the Mississippi Postgraduate Institute in the Medical Sciences, a Mississippi Regional Medical Program-funded project.

FUTURE CALENDAR

April 23-27, 1973

RADIOLOGY INTENSIVE COURSE

April 30-May 3, 1973

MISSISSIPPI STATE MEDICAL ASSOCIATION, BILOXI

July 12-14, 1973

MISSISSIPPI ACADEMY OF FAMILY PHYSICIANS, BILOXI

Encounter under the Scanning Electron Microscope



SEM reveals changes in *E. coli* exposed to antibacterial agents

The Scanning Electron Microscope (SEM) is the only instrument which gives 3-dimensional views on a microscopic level. This permits the surface morphology of microorganisms to be observed in

detailed perspective. Changes in surface morphology of *E. coli* exposed to various antimicrobial agents are seen on the following page. An SEM photomicrograph of normal control *E. coli* appears above.



E. coli + sulfamethoxazole



E. coli + tetracycline



E. coli + cephalothin



E. coli + ampicillin

Different modes of antibacterial action — Similar changes in morphology

As part of a series of experiments,¹⁻³ strains of *E. coli* proven susceptible to each antibacterial agent were exposed to 1 MIC of the respective antibacterials for a three-hour period. Included were cell-wall-active drugs, ampicillin and cephalothin; a drug interfering with intracellular protein synthesis, tetracycline; and a chemical agent which acts by interference with para-aminobenzoic acid, sulfamethoxazole.

As seen above, elongation of the bacilli, mid-cell defects and spheroplast-like forms may be appreciated with the SEM technique. These changes in bacterial morphology were similar... regardless of the antibacterial agent used and irrespective of

its mechanism of action.

"At present, the significance of these observations in clinical infection must be considered with caution, but it is hoped that these data will stimulate a reevaluation of present concepts of the nature and role of morphological variants of bacteria exposed to a variety of antibacterial factors."²

It should be noted that no clinical conclusions can be drawn from this study, as it is not always possible to extrapolate *in vitro* data to humans.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections. Measure sulfonamide blood levels as variations may occur; 20 mg/ 100 ml should be maximum total level.**

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been estab-

lished. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate or prevent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias* (agranulocytosis,

Encounter in Clinical Practice

Control of primary bacterial offenders

Antibacterial Gantanol® (sulfamethoxazole) controls susceptible strains of *E. coli* and other gram-negative and gram-positive organisms

often implicated in acute nonobstructed pyelonephritis and cystitis.

Prompt antibacterial blood and urine levels

In from 2 to 3 hours after the initial 2-Gm adult dose, antibacterial levels are present in

both the blood and urine.

B.I.D./T.I.D. dosage for around-the-clock coverage

Subsequent 1-Gm doses provide up to 12 hours of antibacterial coverage. More severe u.t.i. may require a q. 8 h. dosage regimen. Either schedule provides coverage during the waking

and sleeping hours—especially important during hours of sleep when normal urinary retention tends to favor bacterial proliferation.

Also effective in nonobstructed chronic and recurrent u.t.i.

It is not uncommon for the elderly and the debilitated to develop chronic and/or recurrent nonobstructed urinary tract infections such as pyelonephritis and cystitis. Such cases often re-

spond satisfactorily to Gantanol. The increasing frequency of resistant organisms is a limitation of usefulness of antibacterial agents including sulfonamides, especially in chronic or recurrent u.t.i.

Your Option: Tablets or Suspension

Either dosage form—the Tablets or the pleasant-tasting, cherry-flavored Suspension—can provide the dependable antibacterial activity necessary to control susceptible nonobstructed cystitis and pyelonephritis. Symptomatic improvement may usually be expected in 24 to 48 hours. The usual precautions with sulfonamide

therapy should be observed, including adequate fluid intake. Gantanol (sulfamethoxazole) is generally well tolerated with relative freedom from complications; the most common side effects are nausea, vomiting and diarrhea. Frequent c.b.c.'s and urinalyses with microscopic examination are recommended.

In nonobstructed cystitis and pyelonephritis due to susceptible organisms

Gantanol®
(sulfamethoxazole)
Basic Therapy

plastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thy-

roid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasps.) initially, then 1 Gm b.i.d. or t.i.d. depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasps.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs b.i.d. Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.



Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley N.J. 07110



PERSONALS

ROBERT L. ABNEY, JIM HENDRICK, CECIL G. JENKINS, J. M. MONTALVO, AARON SHIRLEY, FRANK WIYGUL and NOEL C. WOMACK, all of Jackson, have been selected by the American Academy of Pediatrics to serve as Head Start consultants in this area.

G. SPENCER BARNES of Columbus, R. E. CALDWELL of Baldwin, STANLEY A. HILL of Corinth, S. H. McDONNIEAL, JR., of Jackson, LOUIE F. WILKINS, JR., of Brookhaven, and LYNE S. GAMBLE of Greenville have been elected or re-elected to another term on the board of directors of Blue Cross and Blue Shield of Mississippi, Inc.

THOMAS BARNES of Greenville, in his capacity as vice president of the Mississippi division of the American Cancer Society, spoke to the Greenville Shrine Club and Shrine Club auxiliary members recently.

HAL BISHOP announces the removal of his office for the practice of orthopedic surgery from 1210 West Division Street to Coastal Medical Center, Gateway Executive Park, Biloxi.

JIM M. BROCK of McComb announces the removal of his office to 136 Marion Drive. Dr. Brock limits his practice to the diseases of the skin and skin surgery.

HARRY COSBY, JR., of Iuka was featured in an article on the Regional Medical Programs in the Mar. 26 issue of the *American Medical News*.

MILLARD S. COSTILOW of North Carrollton has been elected an advisor for the Delta Chapter of the American Association of Medical Assistants, Mississippi society.

H. VANN CRAIG of Natchez is president of the Adams County Medical Society. President-elect is KURTZ B. STOWERS and secretary-treasurer is WALTER T. COLBERT.

J. P. CULPEPPER, III, and JOE E. VARNER, JR., announce the opening of their office at Suite 104, Medical Plaza Building in Hattiesburg for the practice of surgery.

S. R. EVANS, JR., announces the opening of his office at 204 8th Street in Greenwood for the practice of surgery.

HANNELORE H. GILES and CONRAD C. HORECKY, III, of the Medical Group of Hattiesburg, P.A.,

announce the removal of their offices to 820 South 28th Avenue.

ROBERT M. GRAHAM, JOEL CALLAHAN and WILLIAM BILLUPS of Meridian are serving as physician advisors to the Meridian chapter of the Mississippi Association of Medical Assistants.

JAMES D. HARDY of Jackson was chosen by the Baylor University at Dallas to lecture as the Shelton Visiting Professor. Dr. Hardy spoke on "New Horizons in Cancer Management."

LEE L. HASSELTINE announces the opening of his new office for the practice of eye, ear, nose and throat at 1906 Shiloh Road in Corinth.

EDWIN M. HEMNESS announces the opening of his office at 1819 Hospital Drive in Clarksdale for the practice of orthopedic surgery.

EMMETT M. HERRING of Hattiesburg has been named an advisory director of Pine Belt Savings and Loan Association.

J. D. HUTCHINS has opened his office in the South Prentiss Shopping Center for the practice of medicine in Prentiss.

CHARLES R. JENKINS of Laurel, MSMA president, participated in the recent Student American Medical Association panel presentation on current health issues and legislation at the Medical Center Holiday Inn in Jackson.

DEWEY LANE of Pascagoula has been elected president of the Board of Trustees of the Pascagoula Municipal Separate School District.

BLANCHE LOCKARD and NOEL C. WOMACK of Jackson were guest speakers at a session on sexual awareness during "Student Life Week" at Mississippi College in Clinton. Dr. Lockard limits her practice to obstetrics and gynecology and Dr. WOMACK is a pediatrician.

M. F. LONGNECKER announces the removal of his practice for orthopedic surgery from 1210 West Division Street to the Coastal Medical Center, Gateway Executive Park, Biloxi.

W. M. MCKELL, JR., of Jackson has been appointed to the board of directors of Citizens National Bank.

WILLIAM E. O'MARA will begin the practice of medicine in Carthage July 1. Dr. O'Mara is currently in a residency program at the V.A. Hospital in Memphis.

E. J. PRICE, JR., of McComb announces the removal of his office for the practice of obstetrics and gynecology to 144 North Boardway in the State Pharmacy Building.

GEORGE PURVIS of Jackson has completed a year of service as chairman of the board of trustees for the Mississippi Baptist Seminary.

ERNEST D. REYNOLDS, JR., of Clinton was named Outstanding Citizen of 1973 by the Clinton Chamber of Commerce at the annual membership banquet.

ROBERT M. RITTER of Whitfield was guest speaker for the Jackson Federation of Women's Clubs meeting at Millsaps College. Dr. Ritter discussed "Psychodynamics of Drug Dependency."

EUGENE TAYLOR and J. C. PASSMAN of Natchez

are cooperating with the Adams County Health Department in conducting a crippled children's clinic for Adams and the surrounding counties.

JAMES S. TROXELL has joined the staff of the Rush Medical Group in Meridian in the field of family practice.

FRANK C. WADE of Magee has announced his candidacy as a Republican for the office of Alderman, Ward I, in the upcoming municipal election.

REGINALD P. WHITE of Meridian was crowned 1973 king of the Junior Auxiliary's annual charity ball.



Mississippi Association of Medical Assistants

Post Office Box 384
Long Beach, Miss. 39560

Dear Doctor,

The Medical Assistant in your office is a very important cog in your medical practice. Do you know about their Association?

Too few physicians realize that there is a Mississippi Association of Medical Assistants. Does your Medical Assistant belong to it? If not, you are missing an excellent opportunity to help her to help you. This Association is structured in the same manner as organized medicine with County, State and National groups. It's bylaws state that it will never become a union.

Ask your secretary or nurse if she is a member; if not, see that she joins. You can pay her dues out of your office expenses. It is a good investment. Only through physician encouragement will AAMA, Mississippi Society become the important asset to medicine that it can be.

Sincerely,

Thelma Van Cloostere

Thelma Van Cloostere, President
AAMA, Mississippi Society, Inc.

Name _____ Address _____ Tel. No. _____

Employer _____ Address _____ Tel. No. _____

Position _____

Are you interested in membership in AAMA, Mississippi Society? _____

Are you interested in having a Chapter in your area? _____



MEETINGS

NATIONAL AND REGIONAL

American Medical Association, Annual Convention, June 24-28, 1973, New York City. Clinical Convention, Dec. 1-5, 1973, Anaheim, Calif. Ernest B. Howard, Executive Vice President, 535 N. Dearborn St., Chicago, Ill. 60610.

Southern Medical Association, 67th Annual Scientific Meeting, November 12-15, 1973, San Antonio. SMA, 2601 Highland Ave., Birmingham, Ala. 35205.

STATE AND LOCAL

Mississippi Academy of Family Physicians, Annual Meeting, July 12-14, 1973, Biloxi. Mrs. Alyce Palmore, Executive Secretary, P.O. Box 12330, Jackson 39211.

Mississippi State Medical Association, 106th Annual Session, May 6-9, 1974, Biloxi. Charles L. Mathews, Executive Secretary, 735 Riverside Drive, Jackson 39216.

Amite-Wilkinson Counties Medical Society, Third Monday, March, June, September, December. James S. Poole, The Field Clinic, Centreville 39631, Secretary.

Central Medical Society, First Tuesday, January, March, May, September, November, 6:30 p.m., Primos Northgate Restaurant, Jackson. Max Pharr, B6 Medical Arts Building, 1151 N. State St., Jackson 39201, Secretary.

Claiborne County Medical Society, 1st Tuesday each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, P.O. Box 147, Port Gibson 39150, Secretary.

Clarksdale and Six Counties Medical Society, Third Wednesday, April, and First Wednesday, November, 2:00 p.m., Clarksdale. Glenn L. Wegener, 1967 Hospital Drive, Clarksdale 38614, Secretary.

Coast Counties Medical Society, First Wednesday, January, March, May, September and November. J. H. Gaddy, 4502 15th St., Gulfport 39501, Secretary.

Delta Medical Society, Second Wednesday, April and October. Walter H. Rose, 122 E. Baker St., Indianola 38751, Secretary.

DeSoto County Medical Society, Third Thursday, February and August, 1:00 p.m., Kenny's Res-

taurant, Hernando. Malcolm D. Baxter, Jr., Baxter Clinic, Hernando 38632, Secretary.

East Mississippi Medical Society, First Tuesday, February, April, June, October, and December. Reginald P. White, East Mississippi State Hospital, Meridian 39301, Secretary.

Adams County Medical Society, First Tuesday, February, April, June, August, October, and December, Eola Hotel Roof, Natchez. Walter T. Colbert, Jefferson Davis Memorial Hospital, Natchez 39120, Secretary.

North Central District Medical Society, Third Wednesday, March, June, September, and December. Robert B. Townes, 1196 Mound St., Grenada 38901, Secretary.

Northeast Mississippi Medical Society, First Thursday, March, June, September, and December. Jack A. Stokes, 207 Holmes Rd., Pontotoc 38863, Secretary.

North Mississippi Medical Society, First Thursday, April and October. Cherie Friedman, 1004 Jackson Ave., Oxford 38655, Secretary.

Pearl River County Medical Society, Second Monday, March, June, September, and December. J. C. Griffing, Crosby Memorial Hospital, Picayune 39466, Secretary.

Prairie Medical Society, Second Tuesday, March, June, September, and December. W. C. Welch, P.O. Box 5448, Mississippi State 39762, Secretary.

Singing River Medical Society, Third Monday, January, March, May, July, September, and November. Jeff Hodges, 1365 Market St., Pascagoula 39567, Secretary.

South Central Mississippi Medical Society, Second Tuesday, March, June, September, and December. Julian T. Janes, Jr., 304 Clark, McComb 39648, Secretary.

South Mississippi Medical Society, Second Thursday, March, June, September, and December. Larry J. Hammett, 2601 Mamie St., Hattiesburg 39401, Secretary.

West Mississippi Medical Society, Second Tuesday, January, April, July, and October, 6:30 p.m., Magnolia Motor Motel, Vicksburg. Martin E. Hinman, The Street Clinic, Vicksburg 39180, Secretary.



American Cancer Society, Mississippi Division, Makes Referral Changes

The Service Committee and Board of Directors of the American Cancer Society, Mississippi Division, are announcing several important changes in its Patient Service Program.

According to Dr. Frank A. Wood, president of the division, one of the most important is the change in the referral procedure.

It has been simplified to allow the physician to make application for patient assistance directly to the state office, rather than first going through local health and welfare departments.

Dr. Wood also pointed out that service can now be provided to medically indigent patients who are being treated at other than the approved tumor clinics in various instances.

These include: patients being treated with radiation therapy who may now receive assistance with transportation other than to the approved tumor clinics, provided they are treated at the nearest qualified center, under the supervision of a board certified radiologist; tumor clinic patients who are undergoing chemotherapy drug treatment who may be treated by their local physicians with both drug and transportation assistance by the division, as long as the treatment is under supervision of the clinic and the patient reports back to the clinic at prescribed intervals; cancer patients receiving speech therapy may also receive transportation assistance to qualified speech therapy centers.

It was also pointed out that annual allowances for transportation may now be expended within a shorter period of time, if needed, for patients who are receiving a concentrated course of treatment.

Another change stated by Dr. Wood is that the annual allowances for pain-relieving drugs can be expended within a shorter period of time, if needed, for patients who are in the advanced stages of cancer.

Other revisions in the service program include the fact that patients may receive pain-relieving drug and transportation assistance at the same time, and that the word "terminal" has been deleted as a requirement for providing pain-relieving drugs.

To request services for a medically indigent cancer patient, the attending physician completes the Service Request portion of the application form as follows (Forms may be secured from Unit Service chairmen or local health department):

A. Lists name, address, age, and sex of patient.

B. Checks whether or not patient is eligible for Medicaid.

C. Enters diagnosis, prognosis, and whether or not patient knows he/she has cancer.

D. Signs statement that in his opinion the patient is medically indigent and requests that the American Cancer Society provide the services checked.

E. Checks services requested and gives the indicated information.

F. Forwards the first four copies of the Service Request Form to the Division office.

G. Retains last copy for his files if he so desires.

Upon receipt of the Service Request Form, the Division office takes the following action:

A. Checks services authorized.

B. Signs on "approved" line authorizing checked services.

C. Forwards copy of Service Request to Service Chairman and others noted.

Upon receipt of Service Authorization, the Unit Service Chairman takes the following action:

A. Contacts patient and/or his family to arrange for services checked to be provided.

B. Makes arrangements with provider of service to render monthly statement to unit.

C. Checks bills, list on Disbursing Order, have appropriate Unit officer to sign (may be Service Chairman, Treasurer, or President), and forwards to Division office for payment. All itemized statements are attached to the Disbursing Order.

Additional application forms may be secured from local Unit Service Chairmen or from the Mississippi division office, 345 N. Mart Plaza, Jackson 39206.

Yates Co. Improves MSMA Group Plan

As approved by the MSMA Board of Trustees, several improvements have been made in the \$15,000 Catastrophic Hospital Plan, policy number 2-A-5002, administered by the Thomas Yates Company of Jackson.

Effective May 1, 1973, the plan improvements include:

(1) The plan now pays 80 per cent of the expenses for hospital room and board, up to a new maximum of \$40 (80 per cent of \$50).

(2) Benefits for mental disorders are now payable up to a new aggregate amount of \$2500.

(3) Coverage for unmarried dependent children is now renewable to age 21 (25 if in college).

Premiums have been adjusted to compensate for plan improvements and for inflation, which has occurred in the past four years, since the last premium adjustment.

All claims are processed by the Yates office in Jackson, giving local service.

SBH Requests Rubella Reporting

Several colleges in Virginia have recently reported outbreaks of rubella. We have received a few scattered reports of suspected rubella cases from several colleges in Mississippi. In an attempt to ascertain if rubella is occurring on college campuses in the state, the Division of Preventable Disease Control has requested that student health clinics throughout the state obtain acute and convalescent sera for rubella titers on students presenting with a rash or syndrome compatible with rubella.

Currently rubella reporting in the state is poor. The State Board of Health encourages physicians to report even individual cases of rubella because it is a disease in which concrete preventative measures are available. Accurate morbidity reporting is an important aid in deciding where to invest time and money in immunization programs. We need the help of the private medical community in order to adequately attack the problem of rubella in Mississippi, said Dr. Durward Blakey, director, Division of Preventable Disease Control, SBH.

Rondomycin[®] (methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines

WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.** **Usage in pregnancy.** (See above **WARNINGS** about use during tooth development.)

Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in premature given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The antianabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal diseases, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: **Gastrointestinal** (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia.

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

USUAL DOSAGE: **Adults**—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. **Gonorrhea.** In uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.

In streptococcal infections, a therapeutic dose should be given for at least 10 days.

SUPPLIED: 'Rondomycin' (methacycline HCl): 150 mg and 300 mg capsules, syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

Rev. 12/71



WALLACE PHARMACEUTICALS
CRANBURY, NEW JERSEY 08512

Dr. Cobb Is New State Health Officer

Dr. Alton B. Cobb of Jackson, Director of the Mississippi Medicaid Commission, has been appointed State Health Officer. Dr. Cobb will assume the leadership of the State Board of Health on July 1, 1973, when Dr. Hugh B. Cottrell, present State Health Officer, retires.

Dr. Cobb received his M.D. degree from Johns Hopkins School of Medicine in 1954. He completed a rotating internship at Charity Hospital in New Orleans and received the master of public health degree from Tulane University. Dr. Cobb served a public health residency with the Mississippi State Board of Health.



Dr. Cobb

He is a Diplomate of the American Board of Preventive Medicine and a member of the Central Medical Society, MSMA, and the American Public Health Association.

Dr. Cobb has a long history of service in health care administration in Mississippi. He was a county health officer in Sunflower County before being appointed director of the Chronic Illness Services of the State Board of Health in 1962. In 1968 Dr. Cobb was named director of Comprehensive Health Planning for the state of Mississippi.

When the Mississippi Medicaid Commission was formed in 1969, Dr. Cobb was named director and has held that post to the present time. He has also served as president of the Southeastern Association of Medicaid Administrators.

Dr. Israel Light Speaks at UMC

Dr. Israel Light, Dean of the School of Health Related Sciences at the University of Health Sciences/Chicago Medical School spoke on allied health trends at the weekly Center Assembly at the University Medical Center in Jackson in March.

Dr. Light was introduced by Dr. Thomas E. Freeland, Dean of the new University of Mississippi School of Health Related Professions.

Dr. Light pointed out the gap between academia and the world of work. He felt that allied health education and training programs are too enamored of education and that no academic credit is given to those trained on the job who seek higher education.

He discussed the fallacy that more numbers of professionals means more and better care. Too much specialization versus fragmentation is another problem and the patient-consumer always pays for the duplication of efforts, he said.

In regard to physician training, he feels they are trained in isolation. The doctor needs to be a member as well as the captain of the team. Team interaction is most important in the health care field today. Team members need to relate better to each other and to the patient, Dr. Light emphasized.

He feels that nurses should have an increased role in health care delivery and that before more specialties are developed, job analysis is essential. There is a great need to match needs with job training.

Dr. Light feels that medical schools (founded for education, research and service) should become involved in training junior and senior health care team members and should work with junior colleges and other institutions to aggressively collaborate training programs for allied health personnel.



Dr. Israel Light, second left, talks with University of Mississippi School of Health Related Professions Dean Thomas E. Freeland, left; clinical laboratory sciences assistant professor Mrs. Frances Freeman, and Dr. Phillip Leverault, assistant professor of clinical laboratory sciences.

Chess Playing Doctors Sought

Physicians who are interested in the game of chess are asked to contact Dr. Leo J. Scanlon, 4 Lakewood, Vicksburg 39180.

Dr. Scanlon is investigating the possibility of drawing up a card file of chess playing physicians who could get together monthly for chess and fellowship.

He is currently serving as treasurer of the Vicksburg-Warren Chess Club which is affiliated with the United States Chess Federation.

Dr. Ochsner Writes on Smoking

"There is no level of smoking which is safe," says Dr. Alton Ochsner, senior consultant in surgery at the Ochsner Clinic in New Orleans.

Dr. Ochsner, also a former professor of surgery at Tulane University and one of the earliest medical authorities to investigate the effects of smoking, makes the statement in the March issue of *Smoke Signals*.

According to Dr. Ochsner, the best way to avoid the bad effects of tobacco is to quit smoking completely.

"After considerable experience in treating patients who are tobacco users, I am convinced that the best way to stop is to abstain completely from it and not taper off," says Dr. Ochsner, who has performed some 2,500 operations on lung cancer patients.

"This is particularly true in the individual who has been a heavy smoker and has developed changes which make him more susceptible to the effects of the continued even though decreased use of tobacco."

Dr. Ochsner says that some people do have withdrawal symptoms from the lack of nicotine. However, the main problem comes from trying to break the habit of repeatedly smoking a cigarette.

It is because of this habit that "for a long period of time an ex-smoker may desire a cigarette," says Dr. Ochsner.

"It is absolutely imperative not to take a single puff, because in that case smoking is likely to be resumed. For the addicted individual it is just as hazardous to take a single cigarette as for the alcoholic to take a single drink."

MSBH Revises Alcoholism Plan

The Mississippi State Board of Health has revised the Mississippi State Plan for the Prevention, Treatment, and Control of Alcoholism. A copy of the plan may be examined at or obtained from the offices of the Alcohol Abuse and Alcoholism Program, Mississippi State Board of Health, 125 Lelia Court, Jackson 39216 (mailing address: P. O. Box 1700, Jackson 39205).

The plan provides for the eventual development of inpatient care, emergency treatment, outpatient services, intermediate care, rehabilitation services, training, research, and evaluation in the area of alcohol abuse and alcoholism.

Any citizen or group who wishes to comment upon the revised plan is urged to do so and to direct any correspondence to the above address.

Dr. Simmons Retires From Blue Plans



Dr. Walter H. Simmons, left, of Jackson, receives a retirement gift from Lowery H. Woodall, vice chairman of Blue Cross & Blue Shield of Mississippi, after he retired from the board of directors following nine years of service. Dr. Simmons heads the Simmons Clinic for Women in Jackson, and serves as vice speaker of the House of Delegates for the Mississippi State Medical Association. He is also former secretary-treasurer of the association.

Blue Plans Hold 26th Annual Meeting

A name change, a new member of the Board of Directors, and impressive growth figures were among the highlights reported at the 26th annual meeting in Jackson of the Mississippi Hospital and Medical Service.

Directors of the health prepayment plan unanimously voted to change the name of the nonprofit health organization to Blue Cross & Blue Shield of Mississippi, Inc. Elected to fill the vacancy caused by the retirement from the Board of Dr. Walter H. Simmons of Jackson, was Dr. Lyne S. Gamble of Greenville.

George W. Butler, president, reported some \$152 million was processed into the health economy of Mississippi in 1972, with more than one million persons being served through regular membership contracts and government programs. Last year \$125 million was processed. A total of \$690,200 was paid for 1972 Premium Tax to the state of Mississippi.

Benefits paid to hospitals and doctors for health care of members amounted to \$42,472,700, an increase of more than \$3.8 million over the 1971 figure. The benefits represented processing 352,000 hospital and doctor bills, and the payment of 584,800 days of hospital care.

As intermediary for the hospital part of Medicare, the Blue Cross and Blue Shield system processed 181,060 claims in 1972 with benefits of \$54,514,000.

Payments processed for the Mississippi Medicaid Program were \$50,040,400 resulting from 3,932,900 claims.

A resolution was adopted by the board honoring the retirement of Eustice G. Raines of Jackson, executive vice president of Corporate Affairs, who has served the Blue Cross and Blue Shield system for 35 years.

Officers reelected to serve another year on the Board of Directors were John D. Holland of Jackson, chairman; and Lowery A. Woodall of Hattiesburg, vice chairman.

Other members of the Board are: T. W. Crowley, Brookhaven; C. B. Read, Lexington; Reuben S. Johnson, Meridian; Fred C. Lavender, Macon; Paul J. Pryor, Jackson; Dr. G. Spencer Barnes, Columbus; Dr. R. E. Caldwell, Baldwin; Dr. Stanley A. Hill, Corinth; Dr. S. H. McDonnial, Jr., Jackson; Dr. Louie F. Wilkins, Jr., Brookhaven; Dr. Lyne S. Gamble, Greenville; T. L. Crosby, Picayune; Shouphie Habeeb, Vicksburg; Purser Hewitt, Jackson; F. H. Nanee, Cleveland; and W. O. Stanley, Jackson.

SAMA President Visits Jackson



George Blatti, far right, national president of the Student American Medical Association, spoke to Mississippi SAMA members, and members of the Jackson medical community in Jackson in March. Blatti, a University of Minnesota School of Medicine senior, discussed the challenge of health science education both at the Medical Center Student Assembly and an evening panel discussion. Here he talks with University of Mississippi School of Medicine pediatrics chairman Dr. Blair Batson, left, sophomore medical student Bert Strom and Mrs. Strom, center.

Three State Physicians Named Radiology Fellows

Dr. Clyde Smith of Greenwood, Dr. Robert R. Surratt and Dr. Robert P. Henderson of Jackson were named Fellows of the American College of Radiology at the annual meeting in San Francisco.

Dr. Smith is affiliated with Greenwood LeFlore Hospital in Greenwood and South Sunflower County Hospital in Indianola, and Dr. Surratt is affiliated with the Mississippi State Hospital at Whitfield and Madison General Hospital in Canton. Dr. Henderson is on the staffs of Mississippi Baptist Hospital and the University Medical Center.

Dr. Smith is a 1948 graduate of the Medical College of Georgia, and Dr. Surratt graduated from the University of Texas Southwestern Medical School in 1944. Dr. Henderson is a 1947 graduate of the University of Tennessee College of Medicine.

The ACR is a professional medical society with 8,000 member physicians who specialize in the use of x-rays and other radioactive substances for diagnostic and therapeutic purposes.

**Because you
practice
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Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions

in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

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Dr. Gamble Elected to Blues Board of Directors

Dr. Lyne S. Gamble of Greenville has been elected to the board of directors of Blue Cross & Blue Shield of Mississippi.

A partner of Gamble Brothers and Archer Clinic, Dr. Gamble has been practicing in the city since 1942. He is a member of the attending medical staff of King's Daughters Hospital and General Hospital, Greenville, and is an instructor in surgery and attending surgeon at University Hospital, Jackson.

A graduate of Greenville High School, Dr. Gamble received his B.A. degree from Davidson College and his M.D. degree from Vanderbilt. He attended graduate school at the University of Pennsylvania and did his internship at Charity Hospital, New Orleans.

Dr. Gamble is a diplomate of the American Board of Ophthalmology and a fellow of the American Academy of Ophthalmology and Otolaryngology. He is a member of the American Medical Association, Southern Medical Association, Mississippi State Medical Association, Delta Medical Society and Louisiana-Mississippi O & O Society. He is a member of the board of trustees of the Mississippi State Medical Association, and medical advisor to the local board of the Selective Service System.



Lowery A. Woodall, right, of Hattiesburg, vice chairman of Blue Cross & Blue Shield of Mississippi, congratulates Dr. Lyne S. Gamble, of Greenville, on his election to the board of directors at the annual meeting of the organization held in Jackson.

Water Sport Injury Course Scheduled

A postgraduate course on water sports injuries will be held at the Americana Hotel in Miami Beach May 25-27.

The course will be produced by the Committee on Sports Medicine of the American Academy of Orthopaedic Surgeons in conjunction with the Department of Orthopaedics and Rehabilitation, University of Miami. Dr. Newton C. McCollough, III, is course chairman.

Tuition is \$150.00 for physicians and includes all luncheons and chairman's reception. Residents will be charged \$50.00 with a letter from their Chief of Service.

For advance registration, write to Dr. McCollough, P. O. Box 875, Biscayne Annex, Miami, Fla. 33152.

MHA Announces Scientific Deadlines

May 25, 1973, has been set as the deadline for receiving abstracts of papers and applications for cardiovascular films and scientific exhibits to be presented at the 46th annual scientific sessions of the American Heart Association. The meeting will be held from Thursday, Nov. 8, through Sunday noon, Nov. 11, in Atlantic City, N. J.

Entries must be based on original investigations in the cardiovascular field, including the stroke, renal, cardiopulmonary, thrombosis and epidemiology areas. The project's results and the investigator's conclusions should be summarized in the abstract and must be submitted on official AHA forms.

As in the past, cardiovascular films will be shown concurrent with the scientific sessions. The association's Subcommittee on Films will select recently produced prints to be presented.

Space for industrial exhibits may be requested through Steven K. Herlitz, Inc., 850 Third Avenue, New York, N. Y. 10022.

Official forms for submitting abstracts, films and scientific exhibits may be obtained from the Department of Medical Education at AHA's National Office, 44 East 23rd Street, New York, N. Y. 10010.

Dr. Welt Is UMC Visiting Professor



Dr. Louis G. Welt, left, Yale University internal medicine chairman, was visiting professor of medicine at the University of Mississippi School of Medicine in March. A guest speaker for the annual Renal Seminar at the Medical Center, Dr. Welt goes over plans for his three-day stay in the medicine department with Dr. Ben B. Johnson, center, medicine nephrology associate professor and division chief, and Dr. Harper Hellems, medicine chairman, right.

History of Medicine Society Meets

Dr. James Spell of Jackson, University of Mississippi School of Medicine clinical surgery instructor, talked about medicine during the War Between the States at the History of Medicine Society meeting April 26.

The society's second quarterly dinner meeting began with a social hour, followed by dinner and the talk at 8 p.m. at the Medical Alumni House on the UMC campus.

President Dr. John Gibson, radiology instructor, is accepting membership applications. A year's membership is five dollars, he said.

Membership of the recently re-activated group now stands at 30.

Louisiana Diabetic Camp Session Announced

The Louisiana Camp for Diabetic Children, Camp Singing Waters, plans its annual session for July 22-Aug. 4. The camp is supervised by physicians from the Greater New Orleans Diabetes Association and Tulane University Medical School.

Campers from out of state are encouraged to apply for acceptance, which will be on a first-come-first-serve basis.

The camp is sponsored by the Diabetes Association of New Orleans and is owned and operated by the YMCA of Baton Rouge.

For further information, write Diabetic Summer Camp, Room 301, 816 Howard Avenue, New Orleans, La. 70113.

FP Text Scheduled For Second Printing

The first definitive work on the discipline of family practice is now off the press. *Family Practice* is a basic text for students and residents in family practice and may be used also as a reference for practicing physicians.

The volume covers a wide range of subjects, including family psychodynamics, the management of chronic illness, interviewing techniques, sex counseling, treatment of chemical abuse, and managing the health care team. In addition, it includes 15 chapters on the clinical components of family practice.

Dr. Thomas W. Johnson, formerly director of the Education Division of the American Academy of Family Physicians; Dr. Robert Rakel, chairman of the Department of Family Practice at the University of Iowa College of Medicine, and Dr. Howard Conn, staff member of Uniontown (Pa.) Hospital are co-editors. Contributors include a number of physicians in family practice education and private family practitioners.

Early sales exceeded expectations. A second printing of the book is scheduled May 2. According to W. B. Saunders, publishers, "No other book brings together so much information tailored specifically to the needs of the family physician and primary care specialist."

The library description is: *Family Practice*. Conn, Rakel and Johnson. W. B. Saunders Co., West Washington Square, Philadelphia, Pa. 19105. About 1,065 pages, 350 figures. The book costs about \$33.00.

Sandoz Offers Psychiatric Film

Sandoz Pharmaceuticals, East Hanover, N. J., has announced the release of a new medical educational film: "The Psychiatric Emergency . . . therapy, discharge, aftercare," by Dr. Ronald C. Smith, Associate Clinical Professor of Psychiatry, University of Southern California, School of Medicine, Los Angeles.

This is a 17-minute color film about three patients at the Brea Hospital Neuropsychiatric Center, Brea, California, admitted in states of psychiatric emergency typical of most admissions from the community in institutions of this kind.

Dr. Pittman Appointed UAB Dean

A new dean for the School of Medicine, University of Alabama in Birmingham (UAB), has been appointed, according to an announcement by Dr. S. Richardson Hill, Jr., vice president for health affairs.

Dr. James A. Pittman, now assistant chief medical director for research and education, Department of Medicine and Surgery, Veterans Administration Central Office in Washington, will succeed Dr. Clifton K. Meador as head of the school, effective July 1, 1973.

In his position with the Veterans Administration, Dr. Pittman has held a leadership role in health care management; his office has supervised the expenditure of some \$230 million annually for education and research in the health field.

Dr. Pittman also presently holds the academic title of professor of medicine, Georgetown University School of Medicine.

A nationally known endocrinologist, Dr. Pittman is returning to the Medical Center where he held appointments from instructor through professor of medicine and director of the division of endocrinology and metabolism, from 1958-71. He was also chief of the nuclear medicine service for the Veterans Administration and UAB hospitals.

Dr. Pittman graduated cum laude from both Davidson College, North Carolina, and Harvard Medical School. He took his internship and a residency at Massachusetts General Hospital. Following a two-year period of service with the National Cancer Institute and a traineeship at Oak Ridge Institute of Nuclear Studies, he came to the UAB

Medical Center to continue his residency training in the Department of Medicine.

He has held faculty positions at Harvard University, George Washington University School of Medicine, and Georgetown University School of Medicine.

Dr. Hill said, "He is an outstanding physician and administrator and we are looking forward to working with him again in this new and important position as dean of the School of Medicine," he added.

Dr. Pittman is a member of many medical and scientific organizations and has served on important committees at state and national levels. He is presently on the National Board of Medical Examiners, a member of the Council of the Endocrine Society and a director of the American Thyroid Association. He has held a number of offices, including vice president of the American Thyroid Association, and president of the American Federation for Clinical Research; he was a guest examiner for the American Board of Internal Medicine for five years, and served on the editorial board of the Journal of Clinical Endocrinology and Metabolism for seven years.

His research, primarily in the field of thyroid disease, has resulted in approximately 150 publications in scientific journals and books.

Dr. Pittman will resume his academic appointment as professor of medicine and both he and Dr. Charles A. McCallum, Jr., dean of the School of Dentistry, will hold the title of deputy vice president for health affairs, Dr. Hill said.

AMA Drug Manual Due This Year

Editorial work has been completed on the second edition of the American Medical Association's massive encyclopedia of prescription drugs—*AMA Drug Evaluations*—and the new volume will be published later this year.

"We are now into the proof stage in the second edition," declared John C. Ballin, Ph.D., director of the Department on Drugs.

In the meantime, the staff of the AMA's Department on Drugs already has received assignments and work has begun on the third edition.

The book will describe some 1,300 prescription drugs in sufficient depth and detail to permit physicians in practice to evaluate the possible benefits and possible side effects of use of these products in their patients. Some 30 new drugs have been added since the first edition was published in March 1971. However, some of the drugs listed

in the first edition have since been withdrawn from the market and no longer will be included in the new version.

The second edition will be published in hard cover format rather than the paperback pattern of the first edition, Dr. Ballin said. Price of the book has not yet been established, but it is anticipated that it will be approximately \$10.

Some 220,000 copies of the first edition are now in the hands of America's practicing physicians, making AMA-DE the most widely distributed medical book ever published, Dr. Ballin pointed out.

The second edition will be basically an updated version of the first, with some new material added and revision of some of the old data. The index will be simplified, listing drugs and page numbers for both generic and trade names. A "New Drugs" section in the first version will be dropped, but the information is now incorporated into the body of the book. A section on drug interactions—the possible effect on the patient of doses of two or more different drugs that might interact with each other—has been expanded.

Some of the drugs described in the volume are listed as "not recommended." In the second edition, this listing will be followed by an explanatory phrase, such as "Not recommended because evidence of effectiveness is inadequate."

"It is the most complete book on pharmaceutical preparations ever published for those who prescribe, dispense, and administer drugs," Dr. Ballin declared.

"AMA-DE deals with the pharmacology and therapeutic indications of drugs, makes judgments on effectiveness, lists drugs and combinations by generic and proprietary names, gives the usual dosage for most evaluated drugs, and describes the preparations available.

"An effort has been made to list *all* nationally distributed products that are dispensed exclusively or principally by prescription," he said.

The volume includes 92 chapters, each dealing with a special therapeutic class of drugs. Each chapter opens with a statement on the drug group, its potential uses, and its limitations. Then follows a detailed report on each drug in the category.

Trauma Course Set for Chicago

Dr. Rocco A. Calandruccio, associate professor of orthopaedic surgery, University of Tennessee; Campbell Clinic, Memphis, Tenn., will be the distinguished guest speaker for the Seventeenth

Annual Postgraduate Course on Fractures and Other Trauma, to be presented May 9-12, 1973, at the Sheraton-Chicago Hotel, 505 North Michigan Avenue in Chicago by the Chicago Committee on Trauma of the American College of Surgeons. Dr. Calandruccio will speak on pathophysiology of non-union, fractures of the femoral hip, posterior dislocation of the shoulder, and lesions confused with lumbar discs.

Other featured guest speakers include Drs. James W. Harkess, Louisville, Ky.; Kenneth G. Jones, Little Rock, Ark.; Harold E. Kleinert, Louisville; and Arthur W. Trott, Boston, Mass. In particular, subjects covered by the above teachers will include complications following cast application, management of pathological fractures in childhood, the unstable knee, fractures of the tibial plateau, fractures about the elbow, flexor tendon surgery, recent advances in hand surgery, growth disturbances following epiphyseal fracture, and fractures of the hip in children.

Many other types of fractures and dislocations in children and adults will be covered, as well as facial fractures from vehicular accidents, chest injuries, blunt and penetrating injuries of the abdomen, injuries to the genito-urinary tract, vascular injuries, and primary and secondary skin coverage techniques. There will be a question-and-answer period after each presentation.

Friday afternoon will be devoted entirely to the hand, with Dr. John Bell, president of the American Society of Hand Surgery, presiding.

Altogether, 36 men comprise the faculty, representing many of the medical schools in the Chicago area. The program is intended for all who care for injured patients, and is acceptable for 28½ elective hours by the American Academy of Family Physicians.

One evening session will coincide with the monthly hospital meeting of the Chicago Committee on Trauma, and will be held at the Wesley Memorial Hospital, featuring problem cases and patient management. A joint meeting with the Chicago Orthopaedic Society is scheduled for another evening.

The registration fee is \$140.00, and checks should be made payable to the American College of Surgeons, 55 East Erie Street, Chicago, Ill. 60611. For interns, residents, and allied health personnel the registration fee is \$35.00. Included in this fee are three luncheons, and a chairman's reception, to which wives are also invited.

Chairman for the Course is Dr. Ralph T. Lidge, and co-chairman is Dr. James P. Ahlstrom, Jr. The chairman of the Chicago Committee on Trauma is Dr. Colman J. O'Neill, and the secretary-treasurer is Dr. James F. Kurtz.

ACOG Plans Annual Meeting

The American College of Obstetricians and Gynecologists will meet May 21-24 at the Americana Hotel, Bal Harbour, Fla.

This 21st annual clinical meeting will feature formal papers, reports on current investigations, and specialty meetings on community health, maternal and perinatal medicine, oncology, pediatric and adolescent gynecology, and psychosomatic obstetrics and gynecology.

There will be two "Great Debates," breakfast conferences and a full motion picture program.

New this year are postgraduate courses throughout the meeting as well as preceding it, and informal Curbstone Consultations with two authorities on each subject.

New Self-Assessment Tests in Clinical Obstetrics and Clinical Gynecology will be offered. Registration fee for nonmembers is \$125.

For information, contact: Donald F. Richardson, Associate Director, American College of Obstetricians and Gynecologists, One East Wacker Drive, Chicago, Ill. 60601.

Quality of Life Congress Set

The Gulf States Region Congress on the Quality of Life will be held May 16-19 in New Orleans at the Marriott Hotel.

The course will cover maternal and child health from conception through adolescence and will be sponsored by the Louisiana State Medical Society and Women's Auxiliary, Tulane University Medical Center and the Louisiana State University Medical Center under the auspices of the AMA and other agencies.

Faculty will consist of health and behavioral professionals from the four-state area—Louisiana, Texas, Mississippi and Alabama. The course is designed to jolt public awareness to the importance of all children and to be another spur to intergroup action on behalf of children at all levels—national, regional, state and local.

The \$30.00 registration fee covers two lunches, one reception and convention material.

For registration and information, write to Tu-

lane Medical Center Relations, Congress on the Quality of Life, 1430 Tulane Ave., New Orleans, La. 70112.

Drug Abuse Commission Makes Report

While the abuses of alcohol, heroin and other drugs show no signs of disappearing soon and may even increase, drugs do not threaten to destroy society, the National Commission on Marijuana and Drug Abuse has told Congress and President Nixon.

Making more than 100 recommendations to de-emphasize government involvement in the drug field, which the panel sharply criticized, and re-emphasized family, church and community involvement, the 481-page report concluded:

(1) "The commission sees little evidence of any decline in the rate of experimental use, particularly of marijuana and hallucinogenic drugs, by young people. . . . Youthful experimentation will remain one of the most difficult aspects of the drug problem."

(2) "The commission does not anticipate a quick end to the heroin problem. A large segment of the current heroin-dependent population resists any form of treatment while new users continue to be recruited."

(3) "The commission does not anticipate the imminent discovery of a cure or vaccine for drug dependence. Compulsive drug use does not seem to be the kind of phenomenon for which science will discover a 'magic bullet.'"

(4) "The commission foresees a possible continuing increase in the already extensive phenomenon of circumstantial use, slowed only by reduced availability of specific substances within legitimate medical channels. Only an effective long-term policy can forestall or diminish this development."

(5) "The drug problem, as perplexing and extensive as it is, is not going to bring about the collapse of our society. We will make some progress in dealing with it, but we should not harbor unrealistic hopes for the future."

The report by the high-level commission, which a year ago recommended that all criminal penalties for personal use and possession of marijuana be abolished, came as the White House announced plans to group all federal drug law enforcement under one agency in the Justice Department.

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JUNE 1973

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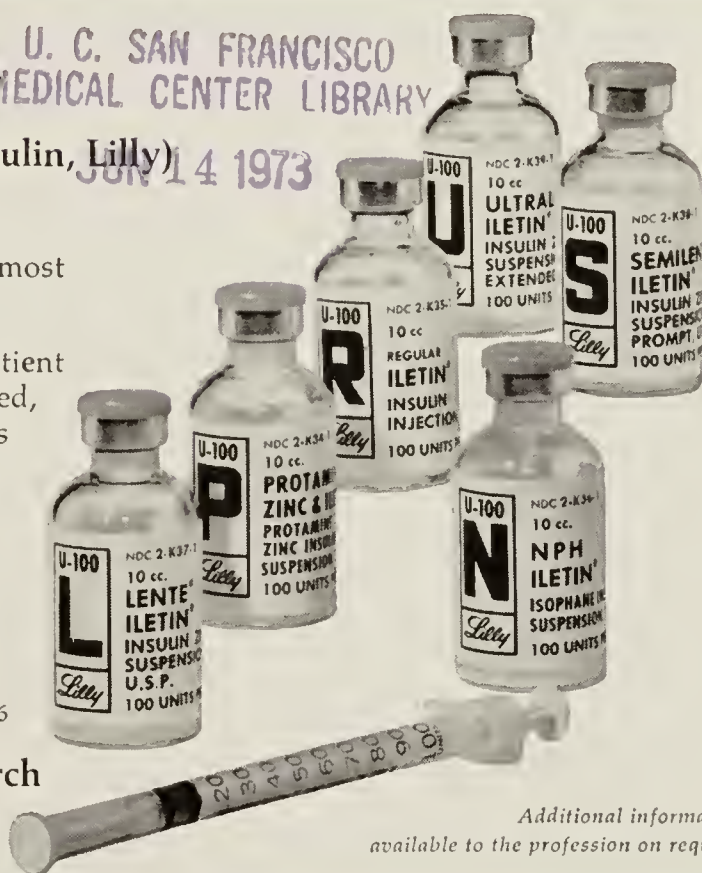
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*This Month . . . Arterial Injuries,
Breast Cancer Detection, Treatment
of Burns, MSMA 105th Annual Session*





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Pinworm therapy is often a family affair



Contraindications: History of hypersensitivity to thiabendazole.

Warnings: If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed. Rarely, erythema multiforme has been associated with thiabendazole therapy; in severe cases (Stevens-Johnson syndrome), fatalities have occurred. Because CNS side effects may occur quite frequently, activities requiring mental alertness should be avoided. Safe use in pregnancy or lactation has not been established.

Precautions: Ideally, supportive therapy is indicated for anemic, dehydrated, or malnourished patients prior to initiation of anthelmintic therapy. In presence of hepatic or renal dysfunction,

patients should be carefully monitored.

Adverse Reactions: Most frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, hyperirritability, numbness, abnormal sensation in eyes, blurring of vision, xanthopsia; hypotension, collapse; enuresis; transient rise in cephalin flocculation and SGOT; perianal rash, cholestasis and parenchymal liver damage; hyperglycemia; transient leukopenia; malodor of the urine, crystalluria, hematuria; appearance of live *Ascaris* in the mouth and nose. Hypersensitivity reactions



ORIGINAL PAPERS

Arterial Injuries Associated
With Closed FracturesWILLIAM TOMPKINS, JR., M.D., and
JAMES R. GREEN, M.D.

Jackson, Mississippi

THE MANAGEMENT of injuries to the vascular and skeletal systems has been vastly improved since 1945. Ligation of the injured vessels, even major ones, was the treatment of choice in the majority of arterial injuries sustained in World War II, when among 2,471 acute arterial wounds, end to end anastomosis was effected in only three instances.³ The overall amputation rate in that conflict was 45-55 per cent, while in the Korean and Viet Nam wars the amputation rates following arterial injuries were 13 per cent and 8 per cent respectively.⁸ However, in civilian surgical practice this rate of limb loss has continued to be far higher, according to Goldman, et al.⁴ who found that 50 per cent of arterial injuries were recognized late or not at all.

Arterial injury associated with long bone fractures can present special problems. The purpose of this report is to present two such cases, representing problems with arm and leg fractures.

CASE REPORTS

Case No. 1. J. F., a 46-year-old man, was changing a tire on his automobile which blew up, resulting in injury to his face and right arm. On admission to the emergency room his vital signs were stable, there were lacerations of his face, an obvious closed fracture of the upper right arm with marked swelling and no right radial pulse. The right hand was warm and there was no

neurologic deficit. Facial films revealed a fracture of the left mandible, a fractured right zygomatic arch and a vertical palatal fracture. Roentgeno-

Arterial injuries occur frequently in association with closed fractures of the extremities. The authors emphasize the importance of a thorough initial examination and periodic re-evaluation of the peripheral circulation in such circumstances. Early diagnosis, with arteriography when feasible, and prompt surgical treatment both for bone stability and repair of the injured vessel is axiomatic for optimal limb survival.

grams of the right arm revealed a closed, displaced comminuted fracture of the mid-portion of the right humerus. Because of the absent right radial pulse, a brachial arteriogram was done which demonstrated a block of the brachial artery at the level of the fracture site (see Figure 1). There were collateral channels and reconstitution of the contrast media above the elbow with good run-off into the radial and ulna arteries. Initial laboratory data was within normal limits and he was taken to surgery, at which time a Rush rod was placed in the right humerus through the fracture site (see Figure 2). The bone being stabilized in this manner, exploration of the brachial artery was undertaken. There was a one-inch segment of brachial artery which was obviously contused with the adventitia intact. After proximal and distal control was obtained, and heparin injected

From the Department of Surgery and Division of Orthopedic Surgery, University of Mississippi School of Medicine, Jackson, Miss.

* Presented before the American Association for the Surgery of Trauma, October, 1971.

Arterial Injuries / Tompkins & Green

distally, the injured segment was excised. This revealed an intramural hematoma with thrombosis in the injured segment of artery. After Fogarty catheterization of the distal artery had been carried out, the two fresh ends of the artery were anastomosed with fine arterial suture, with return of a good pulse distal to the anastomosis. The facial fractures were then repaired. Post-operatively he did well and was discharged on the fourth hospital day with a good right radial pulse and no neurologic deficit.*

Case No. 2. W. G., a 35-year-old male, was hit by a motor vehicle while crossing the street and was brought to the University Hospital emergency room immediately. Vital signs were normal and physical examination revealed a swollen distal left thigh, absent popliteal and foot pulses on the left with good distal pulses of the right lower leg. The left foot was cool and the patient complained of numbness and weakness in the left foot. X-rays of the pelvis revealed a fracture of the left anterior inferior iliac spine, avulsion fracture of the left greater trochanter, left acetabular fracture, left inferior pubic ramus fracture, and separation of



Figure 2. X-ray of right humerus postoperatively with Rush rod in place.

the symphysis pubis. X-rays of the left leg revealed a displaced fracture of the distal one-third of the femur with posterior displacement of the proximal fragment (see Figure 3). Because of the pelvic fractures and the separated symphysis pubis, a urethrogram was done which showed no extravasation. A femoral arteriogram revealed a 7 cm block in the distal left superficial femoral artery with good reconstitution in the popliteal artery below (see Figure 4).

The patient was then taken to surgery, where, through a left lateral thigh incision, the left femur fracture was stabilized using a Jewett nail (see Figure 5). Then through a left medial thigh incision the distal left femoral artery was explored. There was a 1 cm area of contusion of the artery where the posterior fragment had compressed the artery. Fifty mg of heparin were given intravenously and a transverse incision was made over the contused area after proximal and distal control had been obtained by passing umbilical tapes around the artery. There was no subintimal hemorrhage nor was there any intimal disruption. There was what appeared to be an atheromatous plaque which was causing stenosis of the injured



Figure 1. Right brachial arteriogram demonstrating block in brachial artery (arrow) and displaced fracture of right humerus.

portion of the femoral artery. Fogarty catheterization was then carried out, obtaining an 8-10 cm organized clot proximally and none distally. Following this the contused area of the artery with atheromatous plaque was excised and an end to end anastomosis effected with arterial suture. After the proximal and distal clamps were released, there was a good pulse felt in the popliteal artery and the wound closed. Postoperatively, the patient had a good left dorsalis pedis pulse. He did well except for some weakness of the lower



Figure 3. X-ray of left femur showing comminuted fracture with posterior displacement of proximal fragment.

left leg, which improved with physical therapy, and was discharged.

DISCUSSION

Some degree of small vessel damage occurs with every long bone fracture. Injury to periosteal or nutrient vessels is not of prime importance in the initial phase of fracture treatment. Damage to large or medium-sized vessels, however, is of utmost importance in the treatment of the injured extremity, and must be treated as a surgical emergency. Experimental work has shown the maximal permissible time lag between major vessel

occlusion and restoration of blood flow to be 6 to 8 hours.⁶ This time lag factor, however, is a relative figure depending upon the degree of arterial occlusion, collateral circulation, associated soft tissue swelling, and presence of peripheral vascular collapse, among still other considerations. Early diagnosis thus influences the course and success of treatment.

Most vascular injuries associated with closed fractures occur in vessels which are deep and relatively fixed and which are in close association to the bone, the most frequent being brachial, femoral and popliteal artery injuries. Supracondylar fractures of the humerus and femur, and femoral shaft fractures, are often involved. The signs of major arterial injury are a cool extremity, often loss of pulses distally, and sensory and/or motor deficits in the involved extremity. In cases of extremity fractures where these signs are present, prompt evaluation of the arterial supply is mandatory. Splinting of the fracture, or readjustment of balanced traction, may relieve pressure on the artery and restore uninterrupted pulsatile flow to the extremity distally. In other patients, an arteriogram may be indicated to identify the probable site and nature of arterial injury. In any event, exploration may be indicated, or necessary, to provide adequate arterial flow. Needless to say, splinting of the involved extremity is essential to prevent further arterial damage and possible nerve injury. Whenever possible, fracture fixation should be accomplished prior to undertaking exploration of the injured vessel to facilitate repair of the injured vessel and to prevent further injury to the vessel after repair. As a general rule, the fracture should be stabilized by the most expedient method which will offer the greatest stability of the fracture site. Again, arteriography is very useful and can be especially valuable where there is a pulse distal to the injury, but other signs of arterial insufficiency are present. Arteriography can be negative in the presence of vascular injury, where clotting has sealed off arterial wall injury.

Arterial injuries associated with closed fractures usually fall into three categories: (1) disruption of the vessel due to direct trauma from the bone fragments; (2) those secondary to compression, stretch, or spasm; and (3) those that develop later as false aneurysms and arteriovenous fistulae.⁵ The type of repair indicated is dependent on the injury to the vessel. Simple tears and punctures can best be repaired by continuous suturing of the tear. Large rents in the vessel may require a patch or, more easily, resection with end to end anastomosis. With subintimal hemorrhage or intimal tears, endarterectomy and/or suture of the

Arterial Injuries / Tompkins & Green

intima must be accomplished. If the artery is completely divided, end to end anastomosis can be effected or, for large defects in the vessel where end to end anastomosis is not feasible, resection and use of a vein graft may be required. Proximal and distal Fogarty catheterization may be necessary. When there is marked edema or swelling, a fasciotomy is often indicated to prevent the complication of Volkmann's ischemic contracture. If there is disappearance of a distal pulse, which was present after the vascular repair, re-exploration must be considered, although the complications of osteomyelitis and infection are much higher. Arteriography should usually precede exploration in such instances.

SUMMARY

Arterial injuries occur frequently in association with closed fractures of the extremities. Thus, a thorough initial examination and periodic re-evaluation of the peripheral circulation in such circumstances is mandatory. Early diagnosis, with arteriography when feasible, and prompt surgical treatment both for bone stability and repair of the injured vessel is axiomatic for optimal limb



Figure 4. Left femoral arteriogram demonstrating block in distal left femoral artery.



Figure 5. X-ray of left femur postoperatively showing fracture fixation with Jewett nail.

survival. When the patient must be transported, the injured extremity should be effectively splinted. The type of repair carried out on the injured vessel will be dependent upon the condition of the vessel found at the time of exploration. ★★★

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Reducing Mortality in Breast Cancer Through Early Detection

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THERE IS INCREASING emphasis on improving the quality of health care in the United States. Programs are being stimulated and funded for basic research and means of controlling cancer. During the last 10 years cancer of the breast has received revitalized interest. It remains, however, the most uncontrollable of the major cancers and kills more women than any other malignancy. Nearly 6 per cent of women will develop breast cancer during their normal life expectancy.

It ranks first among cancers in number of surgical procedures, in radiation therapy treatments and in the number of hormone and chemotherapy administrations. In cancer diagnosis, it is the first in number of biopsies and is first of all cancers from the standpoint of cost in physician's fees and hospital bills. One cannot compute its ranking in heartache and suffering.¹

The overall survival rate has not improved significantly in 40 years despite more radical operations, intensive x-ray therapy and chemotherapy. It is probably true that the practical limits of excisional surgery have been reached, and that ionizing radiation has been utilized to the greatest possible degree.

Where then do we go? Obviously we should spend more effort to determine the cause of the disease. Until the cause is known and prophylactic means are developed against the disease, we should pursue the concept of earlier detection. Carcinoma of the cervix illustrates the concept. Twenty-five years ago it was the number one killer of women. Since then the mortality rate of cervical cancer has been cut in half. Even though prevention is not possible, the disease can virtually be eliminated by uniform use of the pap smear as a means of early detection.

A fundamental question must be answered concerning early diagnosis. Does early detection, that is the discovery of smaller breast lesions, improve survival? One extreme of opinion is represented

by the pessimistic concept of biologic predestination which holds that the die was cast before clinical evidence of the disease made itself apparent and that efforts to influence survival rates by earlier detection were futile.² Indeed,

The author discusses cancer of the breast in terms of history, mortality, the importance of early detection, diagnostic and treatment procedures. He emphasizes that until intensive research determines the cause of the disease, early detection is the most effective way to cut mortality. Periodic self-examination, careful annual physical examinations of the breast by physicians, mammography, thermography and xerography are the currently available procedures to make early clinical diagnosis—thus finding smaller tumors and increasing chance of survival.

this has been shown to be true for a small percentage of patients.³ No matter how small the lesion at diagnosis, spread to axillary nodes has already occurred and survival is not improved. Bond⁴ contends that the apparent increase in survival time resulting from efforts at early detection consists of nothing more than that increment of time between early detection and the time when the tumor would have made itself apparent in due course. Both opinions have some merit.

An influential study by Fisher et al⁵ in 1969 downplayed the significance of tumor size on the risk of recurrence. He reported results of the National Breast Project which was a cooperative study beginning in 1957, involving 45 institutions in the United States. The study provided data regarding the relation of tumor size to patient prognosis. Five year recurrence and survival data were obtained from 1,100 patients who had radical mastectomies. Tumor size was recorded by the examining physician and the pathologist who

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measured the surgical specimen. In most instances there was excellent agreement between the two. Tumors were arranged in one cm groupings and correlated with nodal involvement and prognosis. Tumor size ranged from less than one cm to six cm plus. Five per cent of all tumors were smaller than one cm; the statistical significance of data in the small group was considered unreliable.

Fisher noted that the presence or absence of involved axillary nodes and thus patient prognosis was often independent of primary tumor size. Patients with large tumors but negative nodes had nearly as good prognosis as those with smaller tumors and negative nodes when compared at five years. However, when looking at the overall relationship of tumor size to axillary node involvement there is undeniable improvement in prognosis with smaller tumors. Five year recurrence drops from over 60 per cent with tumors six cm and larger to 30 per cent with those from 1.0 to 1.9 cm.

It is well known that the outcome of breast carcinoma is not revealed in the first five years after treatment. Crile⁶ re-emphasized the fact that carcinoma of the breast is often slow growing and recurrences have been noted to occur up to 10-15 years after considered cure at five years. Two hundred and twenty-five patients were followed at least 10 years. He found that at 10 years the difference in survival between patients with lesions 2.5 cm or less in diameter and those with lesions more than 2.5 cm was much more striking than it had been at five years. At 10 years the proportion of patients with small tumors who were still alive was more than twice as high as that of patients with large ones, whereas at five years the relative difference was much less.

Berg and Robbins⁷ followed 1,485 cases of breast cancer treated by radical mastectomy at Memorial Hospital during the period 1940-1943. From a 20 year follow-up they noted a relationship between the size of the tumor and the survival rate. Lesions less than one cm in diameter had a 20 year survival rate of 77 per cent versus 20 per cent for lesions 6 cm or larger.

With convincing evidence that location of smaller tumors, hence earlier detection, will improve patient survival, how then can we better identify them?

In an attempt to make early clinical diagnosis, periodic self-examination has been stressed and promoted during the last 20 years. Indeed, 90-95 per cent of breast lumps that may prove to be

cancer are found by the patient herself. Unfortunately, by the time the mass is discovered by palpation, reports show that it is usually more than 3.5 cm in diameter. In some 65 per cent of cases axillary metastasis has already occurred and the five year survival hardly approaches 50 per cent.⁸

ANNUAL PHYSICAL EXAMS

Women have also been urged to have annual physical examinations of the breast. Although no one doubts this philosophy, for one reason or another periodic careful screening by physicians has not been widely used. That periodic examination does have merit and can greatly improve early detection has been clearly demonstrated by the Cancer Detection Center at the University of Minnesota. Gilbertsen³ (1971) reported the results of annual physician examination during the intervals. The study group included 8,345 women, 45 years of age or older, who were free from symptoms of cancer or other serious disease upon entry into the program and who underwent 46,150 annual examinations at the center.

Since the beginning of the study in 1948, 104 subsequently confirmed breast cancers were diagnosed. Sixty per cent were detected at annual examinations at the center, and the remainder were found during the interval by breast self-examination. The annual incidence rate, approximated as 2.25 per thousand patient years of observation is a rate which corresponds to that which might be anticipated for a group of women similar to that seen at the center. Seventy per cent of the cancers found were without lymph node involvement and apparently localized to the breast at the time of surgery illustrating the relative "earliness" of detection. Survival at 15 years was 82 per cent for those lesions detected at the annual examination and 62 per cent for those detected during the interval. As noted, 70 per cent of patients had negative nodes at surgery; these had a remarkable 87 per cent 15-year survival rate. The survival for all patients was 73 per cent at 15 years.

Thus it appears that substantial potential for improvement in survival for breast cancer patients would appear likely if concerted efforts were made for more adequate professional education regarding the merit of periodic examinations. This should be supplemented by increased efforts for public education regarding breast self-examination.

Methods are now available to aid in earlier detection of breast lesions even at the preclinical phase. As the National Breast Project indicated, perhaps it is only when tumors can be removed

when they are less than one cm that real gains will be made.⁵

There are several procedures which are being employed concomitantly with physical examination to diagnose breast cancer at an earlier stage. These include mammography, thermography and xerography. The one that has received the greatest emphasis and shows most promise is mammography.

MAMMOGRAPHY

Mammography has a long history, dating from early attempts by Salomon⁹ in Germany in 1913. Poor quality results prevented widespread interest until modern techniques were developed and popularized by Egan (1960), Gershon-Cohen et al (1961), and others. Mammography is soft tissue x-ray of the breast. Low kilovoltage is used to enhance the available detail. There is no discomfort to the patient. The average radiation dosage to the skin is in the order of 7-11 rads and to the midpoint of the breast is 3-6 rads.¹⁰ A yearly mammogram for 25 years would give about the same amount of radiation as is used in treating bursitis of the shoulder.¹¹ As it is essential that the x-ray beam be well collimated, the dose is confined to the breast and chest wall and there is no radiation dosage to the gonads. The technique has been shown to be reproducible in the hands of trained radiologists and has made mammography available wherever modern x-ray facilities and well-trained technicians are found. To recognize very small lesions and reduce false interpretations, many centers employ the Senograph, an apparatus designed for mammography. It produces mammograms of high technical excellence. Two views (craniocaudal and lateral) are made. The Egan technique using conventional x-ray equipment has also been widely used with good results.¹²

Mammography has been used basically in two ways: (1) as a screening technique with physical examination; screening may be for the general population or for high risk groups; and (2) in patients with a clinically palpable breast mass.

The value of mammography with a palpable mass lies in two reasons. First, it is used to determine the presence of occult neoplasia either in the ipsilateral or contralateral breast. Secondly, it is used to obtain a baseline x-ray examination of the contralateral breast in event that the originally palpable mass proved to be malignant. This is necessary because of the higher incidence of malignant change in the opposite breast in women with carcinoma of the breast as compared with the ordinary population.

In terms of general screening several large mammography surveys have been conducted. A characteristic of these studies has been concomitant physical examination of the breast. Stevens and Weigen¹³ (1969) reviewed the results of six major surveys. Of 43,875 women who had clinically negative breast examinations and an initial mammographic study, 69 occult carcinomas were detected. This is equivalent to one per 635 patients or approximately 1.6 per 1,000 mammograms. Of the 69 occult carcinomas only 12 (17 per cent) had axillary metastasis. The ratio of malignant to non-malignant lesions was 1:7.5 indicating a relatively high price to pay in order to discover occult cancers. That is, one cancer was detected for every 7.5 mammographic indicated biopsies.

Leis¹² followed 1,626 women with clinically negative breasts over 35 years of age with a yearly mammogram for a period of seven years. In the seven year period 11,382 mammograms were made. Forty-seven cancers in 44 women were found as a result of 72 biopsies performed on the basis of mammogram changes only. The cancers ranged from one to 18 mm in size but only two were larger than 10 mm. None of the lesions were clinically palpable. Of the 44 cases who had complete mastectomy, only two had positive nodes. That his results were outstanding is indicated by the detection of a cancer for every two mammographic indicated biopsies. This compared very favorably with the national overall cancer positive rate of 31 per cent for all indicated breast biopsies.¹⁴

Rogers¹⁴ (1972) reviewed the mammography experience at Emory University and found 30 cancers in 72 cases in which biopsy was performed solely on the basis of x-ray findings. Of the 30 cancers detected, only five had positive lymph nodes. There was a 70 per cent 10-year survival rate in negative node patients as compared to 29 per cent survivors in node positive patients.¹⁵

Venet et al¹⁶ screened 20,211 patients. Twenty-one occult carcinomas were detected by the initial mammographic study for an initial detection rate of one occult carcinoma per 1,000 studies.

The literature thus indicates a pickup rate of between 1.0 and 2.0 occult cancers per 1,000 mammograms on the initial screening with a cancer positive rate between 10 per cent and 50 per cent for the number of biopsies indicated. The pickup rate drops significantly after the initial mammographic examination although most investigators recommend yearly examinations.¹³

It is extremely important to make certain that

the suspicious area demonstrated on mammography is actually removed surgically. If the lesion is nonpalpable it is necessary that the radiologist and surgeon study the x-rays simultaneously and mutually outline the area to be removed. A large biopsy is sometimes necessary. It is good practice to x-ray the specimen immediately after removal to be certain that the suspect area has been removed. It is of equal importance to section the specimen serially.

BREAST SCREENING

Most studies in the literature regarding breast screening have a number of variables making comparisons difficult. There has been difficulty in determining the selectivity factors associated with the examined women as well as the unavailability of suitable comparison groups. Although one must be exceedingly cautious in drawing conclusions from a single study, one is in progress in New York which has received worldwide attention and from which the course of breast screening will be highly dependent.

In 1963, the Health Insurance Plan of Greater New York,¹⁷ a prepaid, group practice plan, started a long-term randomized trial directed at the question, "Does periodic breast cancer screening with mammography and clinical examination result in a reduction in mortality from breast cancer in the female population?" A minimum of 10 years' experience was projected as necessary to answer the question definitely. No previous study had included a suitable control group which would allow for an evaluation of any change in the rate of mortality from breast cancer in the study group. Thirty-one thousand women aged 40 to 64 were assigned randomly to the study group and a similar population to the control group. Only study women were asked to appear for screening examinations, and 20,211 responded initially. Three additional screening examinations at annual intervals had been completed by June, 1970.¹⁸ A modification of the Egan technique was used for obtaining mammograms. The clinicians and radiologists recorded their findings without knowledge of each other's observations.

Two hundred and seventy-nine breast cancers were detected in the study group and 256 in the control group. One hundred of the 279 cancers in the study group were detected through screening. Of the remaining detected in the study group, 82 were found in women who were screened negative and 65 cancers were found in the group of study women who refused screening. The overall de-

tection rate on rescreening was 1.51 per 1,000.

Of the 132 cancers detected on screening, 59 were diagnosed as a result of the clinical evidence alone, 44 on radiologic evidence alone, and 29 when both screening modalities indicated the need for biopsy. Omission of the clinical examination would have resulted in the loss of 45 per cent of the cancers and omission of mammography, a loss of 33 per cent. This supported the author's conclusion that "under the conditions of the screening program, clinical examination and x-ray mammography contribute independently to the detection of breast cancer and neither one could be dispensed with in the search for early disease."

The effect of omitting a screening modality by age groups reveals interesting data. Omission of the clinical examination in the age group 40-49 would have resulted in a loss of 61 per cent of the 132 cancers detected by screening, whereas only 19 per cent would have been lost by omission of mammography. In the age above 50, omission of either modality would have resulted in a substantial number of undetected cancers.

Long-term survival data are not available as yet. However, an important prognostic index can be obtained from the status of the axillary nodes at the time of surgery. Seventy per cent of the breast cancers detected through screening had no evidence of axillary node involvement as compared to 46 per cent in the control group.

The study summarizes "that the clinician faces important problems in a large scale screening program where the overwhelming majority of women are asymptomatic. He is involved in the difficult task of locating cancers that are early and small and in many instances have characteristics that are quite similar clinically to benign lesions. There is unequivocal evidence that despite these problems, the physical examination is an essential component of the screening program."

One can conclude that screening the general population with mammography will find occult carcinomas but yield is low for cost and effort. The fact that screening with this technique also usually insures clinical examination adds much merit. However, it is the consensus of most investigators that mammography as a screening agent for the general population is not practical at the present time and should be limited to research center studies.

There are certain situations in which the yield from mammography should be higher and thus make it a valuable adjunct to breast examination. These include factors which put a patient at "high risk" for developing breast cancer. Some of the factors offer only a slight statistical difference in

the incidence of breast cancer. These include women who were never married, women who married late, low parity women, those having a high socioeconomic status and those with comparatively more years of menstrual activity.¹⁹

Other factors appear to be more significant and merit routine mammography screening. These include patients: (1) with a previous breast cancer; (2) with a family history of breast cancer; and (3) who are to have a biopsy.

Leis²⁰ reviewed the literature concerning the incidence of primary cancer in the second breast. He found a 1 per cent chance of having a simultaneous primary carcinoma in the opposite breast. More significant was the finding that 7 per cent of women developed a primary cancer of the opposite breast at some time after initial diagnosis in the first breast.

Anderson²¹ at M. D. Anderson Hospital (1972), reviewed the records of 500 patients who had a diagnosis of breast cancer who had one or more relatives with the disease. In those with a positive family history for the disease, 9.6 per cent of patients eventually had a primary carcinoma in the opposite breast. If the patient with a familial history of breast cancer developed her initial carcinoma at a premenopausal age, the frequency of a primary cancer in the opposite breast at some time was 15.5 per cent.

Quantitating the risk of developing breast cancer when there is a familial history has been difficult. Shapiro et al in studying risk factors for breast cancer for the Health Insurance Plan of New York found supporting evidence for the proposition that familial association with breast cancer is specific. He found women who reported having one or more sisters with breast cancer at an elevated risk although the association involving mother and daughters was less well defined.

Physical examination remains for the time being the primary means of cancer detection. Survival rates can be significantly improved *only* if we use the technique to its full potential. Perhaps we have overemphasized the concept of self-examination and unconsciously placed undue responsibility on the patient. The key to success lies in placing the primary responsibility back on the physician. We must re-orient ourselves to the concept that early detection improves survival. We must insist on annual careful physician examinations and secondarily encourage self-examination.

Mammography is a valuable adjunct to physical examination. Although the yield is low as a screening technique for the general population, it is highly recommended as an adjunct to physical examination in the "high risk" patient. ★★★

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Burns and Their Emergency Treatment

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DOWN THROUGH the years, fire has been very useful to man, but because of the dire nature of burns fire has also been a great evil at times. There are approximately 2,000,000 people burned seriously enough each year to require medical attention and approximately 8,000 deaths each year due to thermal injury. Most all physicians at one time or another have occasion to care for thermally injured patients at some point in their post-burn course. The purpose of this article is to briefly discuss the immediate problems encountered in badly burned patients and how they should be handled.

Any burn of greater than 20 per cent of body surface area (5-10 per cent in children), burns with other complicating factors such as respiratory injuries, hand burns, fractures, major soft tissue injuries, and electrical burns should be considered as "major" injuries and require special care in the hospital. Partial thickness burns of less than 15 per cent of body surface area may be treated on an out-patient basis provided that the patient and his family are informed and dependable, but close observation of these wounds is essential.

In considering the patient with major burns, the following items need special immediate attention for good care: (1) sedation, (2) airway, (3) tetanus prophylaxis, (4) antibiotic coverage, (5) local wound care, and (6) IV fluid treatment.

Sedation is a frequently misused aspect of the care of the patient. Although a small insignificant burn may be very painful, a full thickness burn is usually painless as the sensory nerve endings have been destroyed. A partial thickness or second degree burn may be painful initially. Requirements for sedation vary immensely with the depth of the burn—a badly burned patient requiring very little or no sedation. Because analgesics and sedation can cloud the clinical picture, it should be kept to the bare minimum in major burns. Another important point regarding sedation is that it should be given by the IV route rather than IM. Because of the massive fluid shifts into the burned area and out of the burned area and the resultant poor circulation, the ab-

Great advances continue to be made rapidly in the diagnostic methods, surgical techniques and drug support available to help the physician care for an infinite variety of problems. The era is long past when practically all significant medical knowledge could be gained by an astute medical student and all known effective remedies could be carried in a single "black bag" to the patient's bedside.

However, many of our most accomplished physicians (whose accomplishments are rarely recognized!) who care for the greatest segment of patient population throughout the rural areas of this state were trained during the earlier era described above. These physicians, for the most part, have made remarkable efforts to stay abreast of the changing tide of medical knowledge and technique. It is for these men that the ensuing series of articles will be written.

We residents must be aware of all new advances and methodology in our respective fields in order to satisfy the exacting requirements of our staff and later our board examiners. If we as residents then truly understand these developments, we should be able to assimilate them, organize the facts into an easily understandable sequence and then pass them on to other interested physicians, for the benefit of the patient.

We will attempt to do this in hopes that this series of articles will provide a service resulting in improved patient care throughout the state. Also we hope that this will give the local physician a concise source of reference when he encounters problems uncommon to him but "routine" in a large medical center. And lastly, we do this realizing it will allow the residents to address themselves to various problems in full view of a large but varied group of experienced, practical practitioners who read this JOURNAL. We hope that comments, suggestions, questions or criticism will be freely offered by the reader.—Donald A. Hopkins, M.D., Resident Editor, University of Mississippi School of Medicine.

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sorption of IM medications may be very erratic and unpredictable.

In all burned patients the *airway* should be carefully evaluated. If there is evidence of respiratory burn it is imperative that the patient be closely observed for respiratory embarrassment and that the necessary items for a trachcotomy be close at hand so that one may be done if any respiratory problems develop.

All patients with burn injuries should be protected against *tetanus*. According to Sherman in *Surgical Clinics of North America*, Vol. 50, No. 6, 1968, there were four cases of tetanus secondary to burn injury seen at the city of Memphis hospitals from 1945-1963. Three of these were fatal. All were secondary to small but deep burn wounds which received inadequate or no medical therapy prior to admission with tetanus. If a patient has been adequately immunized in the past, 0.5 cc of tetanus toxoid should be given IM. If the last booster dose has been more than 10 years ago, then 500 units of hyperimmune human antitetanus globulin (Homotet) should also be given. In those not previously immunized this should be begun with 0.5 cc tetanus toxoid IM plus 500 units of human antitetanus globulin. The active immunization should be completed with two more injections of 0.5 cc precipitated tetanus toxoid at four-week intervals.

Systemic *antibiotic therapy* falls down the line in importance for initial burn therapy, but most authors recommend that the patient be started on penicillin immediately (usually as Aqueous Penicillin I.V.) for the prophylactic prevention of streptococcal septicemia. The serious problem of wound infection with septicemia which frequently occurs in the late course of a burn is beyond the scope of this article.

Immediate *local care* of the burn wound should include gentle washing to remove the dirt and dead, charred skin with a solution such as dilute betadine solution. It should not be necessary to take the patient to surgery for this. The wounds are then usually treated by the open method and covered with an antibiotic cream such as Sulfamylon or gentamycin. Repeated burn bacterial cultures are essential for proper long-term management for prevention of sepsis.

It is usually best to dress extremity wounds, especially those of the hands. If the patient is to be transferred to another hospital he should be covered with a loose sterile dressing.

A very important part of initial treatment of major burns is *IV fluid therapy*. The burn wound rapidly draws water and protein out of the patient's intravascular volume and the patient often

becomes hypovolemic. It is essential to begin replacing these losses as soon as possible so that hypovolemic shock and renal failure can be prevented. There are several different formulae used to calculate the immediate fluid requirements for major burns, the Brooke hospital formula being one of the most popular (see Table I). The "Rule of Nines" is used to calculate the body surface area burned (see Table II). As one can see, a burn will require a large volume of fluid in the immediate post-burn period even in the 8-10 liter/day range for severe burns. If a severely burned patient is to be transferred to a larger hospital, he should have a large bore IV inserted and receive fluids in transit. Ringer's lactate would be the fluid of choice and should be given in adequate volume to keep the patient's hydration up until he reaches his destination. Depending on the severity of the burn several liters of Ringer's lactate may be required. In infants, fluid containing 40-70 mEq. of sodium per liter rather than full strength Ringer's lactate should be used.

TABLE I
BROOKE FORMULA FOR FLUID
RESUSCITATION THERAPY

First 24 hours	
Colloid (plasma, dextran)	0.5 ml/kg body wt/per cent burn
Electrolyte (Ringer's lactate)	1.5 ml/kg body wt/per cent burn
Dextrose/water	2,000 ml
Second 24 Hours	
One-half the amount calculated for colloid and electrolyte during the first 24 hours, but the same amount of electrolyte-free water (2,000 ml dextrose/water)	
1. For calculating fluids, 50 per cent burn is upper limit in adults, 30 per cent in children.	
2. Fluids should be calculated from the time of the burn, not the time of hospital arrival.	

SUMMARY

Any deep second degree or third degree burn in the range of 15-20 per cent body surface area or over should be treated in a hospital with adequate facilities for patient care. If the physician elects to treat the patient in his local hospital, immediate treatment should include: (1) as little sedation as possible, (2) close attention to the patient's airway, (3) tetanus prophylaxis, (4) penicillin systemically, (5) local wound debridement, culture and topical antibiotic application, and (6) adequate IV fluid replacement.

BURN TREATMENT / Turney

TABLE II
"RULE OF NINES" FOR ESTIMATING
PERCENTAGE OF BODY SURFACE
INVOLVED IN BURNS

Anatomic Area	Per Cent of Body Surface
Head	9
Right upper extremity	9
Left upper extremity	9
Right lower extremity	18
Left lower extremity	18
Anterior trunk	18
Posterior trunk	18
Neck	1

If transfer to another hospital is elected, the following are important: (1) avoidance of sedation, if possible; (2) insertion of a large bore (preferably polyethylene) IV catheter for fluid administration with R/L being the fluid of choice; and (3) coverage of the wounds with loose sterile dressings. ★★★

2500 North State Street (39216)

REFERENCES

1. Ballinger, Walter F. II, Rutherford, Robert B. and Zuidema, George D.: The Management of Trauma. W. B. Saunders Co., 1968.
2. Surg. Clin. of N. Am., Vol. 50, No. 6, December, 1970.
3. Shires, G. Tom: Care of the Trauma Patient. McGraw-Hill Book Co., 1966.
4. Swartz, Semour I., Ed.: Principles of Surgery. McGraw-Hill Book Co., 1969.

THE TRUE STORY

Marriage is truly a 50-50 proposition. He makes 50 and she spends 50.
The Italians have put a clock on the Leaning Tower of Pisa. Reason: There's no use having the inclination if you don't have the time.

DAFFYNITIONS

A psychiatrist is someone who doesn't have to worry as long as others do.
A bachelor is a rolling stone who gathers no boss.
—Hawaii Medical Journal



MEETINGS

NATIONAL AND REGIONAL

American Medical Association, Annual Convention, June 24-28, 1973, New York City. Clinical Convention, Dec. 1-5, 1973, Anaheim, Calif. Ernest B. Howard, Executive Vice President, 535 N. Dearborn St., Chicago, Ill. 60610.

Southern Medical Association, 67th Annual Scientific Meeting, November 12-15, 1973, San Antonio. SMA, 2601 Highland Ave., Birmingham, Ala. 35205.

STATE AND LOCAL

Mississippi Academy of Family Physicians, Annual Meeting, July 12-14, 1973, Biloxi. Mrs. Alyce Palmore, Executive Secretary, P.O. Box 12330, Jackson 39211.

Mississippi State Medical Association, 106th Annual Session, May 6-9, 1974, Biloxi. Charles L. Mathews, Executive Secretary, 735 Riverside Drive, Jackson 39216.

Amite-Wilkinson Counties Medical Society, Third Monday, March, June, September, December. James S. Poole, The Field Clinic, Centreville 39631, Secretary.

Central Medical Society, First Tuesday, January, March, May, September, November, 6:30 p.m., Primos Northgate Restaurant, Jackson. Max Pharr, B6 Medical Arts Building, 1151 N. State St., Jackson 39201, Secretary.

Claiborne County Medical Society, 1st Tuesday each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, P.O. Box 147, Port Gibson 39150, Secretary.

Clarksdale and Six Counties Medical Society, Third Wednesday, April, and First Wednesday, November, 2:00 p.m., Clarksdale. Glenn L. Wegener, 1967 Hospital Drive, Clarksdale 38614, Secretary.

Coast Counties Medical Society, First Wednesday, January, March, May, September and November. J. H. Gaddy, 4502 15th St., Gulfport 39501, Secretary.

Delta Medical Society, Second Wednesday, April and October. Walter H. Rose, 122 E. Baker St., Indianola 38751, Secretary.

DeSoto County Medical Society, Third Thursday, February and August, 1:00 p.m., Kenny's Res-

taurant, Hernando. Malcolm D. Baxter, Jr., Baxter Clinic, Hernando 38632, Secretary.

East Mississippi Medical Society, First Tuesday, February, April, June, October, and December. Reginald P. White, East Mississippi State Hospital, Meridian 39301, Secretary.

Adams County Medical Society, First Tuesday, February, April, June, August, October, and December, Eola Hotel Roof, Natchez. Walter T. Colbert, Jefferson Davis Memorial Hospital, Natchez 39120, Secretary.

North Central District Medical Society, Third Wednesday, March, June, September, and December. Robert B. Townes, 1196 Mound St., Grenada 38901, Secretary.

Northeast Mississippi Medical Society, First Thursday, March, June, September, and December. Jack A. Stokes, 207 Holmes Rd., Pontotoc 38863, Secretary.

North Mississippi Medical Society, First Thursday, April and October. Cherie Friedman, 1004 Jackson Ave., Oxford 38655, Secretary.

Pearl River County Medical Society, Second Monday, March, June, September, and December. J. C. Griffing, Crosby Memorial Hospital, Picayune 39466, Secretary.

Prairie Medical Society, Second Tuesday, March, June, September, and December. W. C. Welch, P.O. Box 5448, Mississippi State 39762, Secretary.

Singing River Medical Society, Third Monday, January, March, May, July, September, and November. Jeff Hodges, 1365 Market St., Pascagoula 39567, Secretary.

South Central Mississippi Medical Society, Second Tuesday, March, June, September, and December. Julian T. Janes, Jr., 304 Clark, McComb 39648, Secretary.

South Mississippi Medical Society, Second Thursday, March, June, September, and December. Larry J. Hammett, 2601 Mamie St., Hattiesburg 39401, Secretary.

West Mississippi Medical Society, Second Tuesday, January, April, July, and October, 6:30 p.m., Magnolia Motor Motel, Vicksburg. Martin E. Hinman, The Street Clinic, Vicksburg 39180, Secretary.

Radiologic Seminar CXXVIII: Achalasia of the Esophagus in an Infant—A Cause of Regurgitation, Weight Loss, and Dehydration

B. L. SULLIVAN, M.D.
Columbus, Mississippi

ACHALASIA OF THE cardia is uncommon in infants. Only about five per cent of all cases previously recorded were in children. A review of 601 cases of achalasia of the esophagus by Ozonoff revealed only eight patients less than 10 years of age.¹

The etiology of achalasia is unknown. The underlying defect is thought by most to be a decrease or absence of ganglion cells of Auerbach's plexus; however, this finding is not always present.² Recent electron microscopic studies have demonstrated evidence of vagus nerve degeneration³ and decreased cell counts of the medullary dorsal motor nucleus.⁴ These findings suggest that the primary lesion may be in the vagus nerve or its dorsal motor nucleus, and that the esophageal changes are secondary.⁴

Roentgenographically, marked dilatation of the esophagus is the most striking characteristic feature. The dilated esophagus usually contains residual food and secretions. There is a complete absence of peristaltic activity. The cardiac sphincter fails to open in a normal manner. On fluoroscopic examination, periodic ejections of a small stream of barium mixture are indicative of its spasmodic nature.

The Mechohyl Test⁵ is considered by many to be the true diagnostic test of achalasia. It is performed by administering Mechohyl subcutaneously. This causes a tetanic contraction of the distal one-half of the esophagus in true achalasia.

CASE REPORT

This five-month-old male infant was admitted to the Aberdeen-Monroe County Hospital on

Sponsored by the Mississippi Radiological Society.

Feb. 1, 1973, with a history of regurgitation and difficulty in retaining food since birth. He appeared to have a good appetite and took his feed-



Figure 1. Oblique film of the esophagus immediately after fluoroscopy. Film shows dilatation of the esophagus and tapering of the esophagogastric junction, typical of achalasia.



Figure 2. Anteroposterior film of the esophagus 30 minutes after ingestion of barium solution. Marked retention of barium in the esophagus and lack of peristalsis is evident.



Figure 3. Anteroposterior film of the esophagus one hour after the ingestion of barium. Retained food can be seen mixed with barium in the superior aspect of the barium column.

ings well, only to regurgitate large amounts of undigested food immediately afterward. The regurgitation was not projectile in nature. His weight gain was poor and the regurgitation became progressively more severe. On admission, the child was dehydrated and malnourished. His birth weight was 7 pounds, 15¼ ounces. His weight on admission was 16 pounds, 2 ounces.

An esophagram study done on Feb. 3, 1973, showed marked dilatation of the esophagus with a gentle tapering of the lower esophagus at the esophagogastric junction. No peristalsis could be seen and the cardiac sphincter opened only after the dilated esophagus was filled with barium. Emptying of the esophagus was poor and appeared to be from hydrostatic pressure forcing the cardiac sphincter open. The diagnosis of achalasia was made, and on Feb. 5, 1973, the child was transferred to a pediatric surgeon's care. A gastrostomy and esophageal dilatations were performed. The child is now eating well and gaining weight. He is being followed in an out-patient

clinic and receiving periodic esophageal dilatations.

SUMMARY

A rare case of achalasia of the esophagus in an infant is reported. The symptoms of regurgitation, dehydration and poor weight gain are prominent. Etiology and diagnostic features are presented.

★★★

2526 5th St. North (39701)

REFERENCES

1. Ozonoff, M. B.: Achalasia of the Cardia in Sibs. *Rad. J.* 104:727-728, September 1972.
2. Zboralske, E. Frank and Dodds, Wylie J.: Roentgenographic Diagnosis of Primary Disorders of Esophageal Motility. *Rad. Clin. N. Am.* 147:162, April 1969.
3. Cassella, R. R., Ellis, F. H., Jr. and Brown, A. L., Jr.: Fine-structure Changes in Achalasia of the Esophagus; I. Vagus Nerves. *Am. J. Path.* 46:279, 1965.
4. Cassella, R. R., Brown, A. L., Jr., Sayre, G. P. and Ellis, F. H., Jr.: Achalasia of the Esophagus: Pathologic and Etiologic Considerations. *Ann. Surg.* 160:474, 1964.
5. Kramer, P. and Ingelfinger, F. J.: Esophageal Sensitivity to Mecholyl in Cardiospasm. *Gastroenterology* 19:242, 1951.



The President Speaking

“Involvement and the Coming Times”

ARTHUR A. DERRICK, JR., M.D.

Durant, Mississippi

IN MY REMARKS of acceptance on the coast at the annual session, due to my “premature” senility and an understandable bout of acute neurocirculatory asthenia, I forgot one phrase I meant to use —“in the troublous times ahead.” The many matters before us do indeed portend for us a rocky road—the acceptance of such things as quality assurance of medical care, PSRO and other aspects of H. R. 1, national health insurance, peer review, relicensure—the list seems endless and all represent the thrust of federal legislation and government regulations. Deep down I think most of us resent the inference that we are not doing our job properly. And, indeed, we all know that the vast majority of us are sincere and conscientious practitioners, but we must face up to the fact that our image has changed in the public’s mind. No longer, I fear, do they see us as the gentle and devoted man pictured by Sir Luke Fildes, but as “providers” of health care to “consumers” of our services. If you saw the television program “What Price Health,” you must realize that times have indeed changed. After a long and trying day, it becomes only too easy to succumb to the streak of paranoia that is in all of us, and remain sequestered in the locule of self-imposed isolation of our own personal practices—hoping for the best, assuming that someone will fight our battles for us.

Here the clichés come fast and furious—“United, we stand. Divided, we fall”; “In unity there is strength,” etc., etc. The horrible part is that they are so true! We must bring organized medicine back together again. Webster defines an association as an organization of persons having some common purpose or common interest. To state our purpose and demonstrate our interest, *all* of us should become involved, deeply involved, for, to quote Hippocrates, we are “disciples bound by a stipulation and oath, according to the law of medicine.” ★★★



Mississippi Medical Alumni Emigration Study Reported

In 1964, the Office of Alumni Activities conducted a study to determine trends and reasonings of medical alumni who attended The University of Mississippi School of Medicine, but who chose to reside and practice outside Mississippi.

In that report, the gist of the story was that 56 per cent of our medical alumni before 1955 were living outside Mississippi. Further, the statistics showed a chronologically downward accelerated curve in regard to losing our medical alumni to other regions. The reasons given for choosing to live elsewhere were: (1) returning to original home; (2) marital influences; (3) the influence of locale where medical school, internship, and specialty training was accomplished; (4) economical demands of the times; and (5) armed service locale stimulations. This study was derived from questionnaires received from medical alumni in the class period 1904-1954.

This time the questionnaire period was extended through the class of 1965, stopping with this class since it takes about seven or eight years to complete service obligations and specialized training efforts.

Basically, the same questionnaire was used as before, and this was sent with a cover letter to all out-of-state medical alumni. The mailing went out on Aug. 18, 1972, and Oct. 15, 1972, was the ending date for compilation purposes.

Two hundred and thirty-eight total responses were received prior to Oct. 15, of which 74 were from four-year graduates and 164 from two-year alumni. The number of potential classes to 1965 which had out-of-state members totalled 52. The number of classes represented by responses was 50. Thus, there was good coverage up and down

the line of classes. In the class years covered, 49.8 per cent were living in the state of Mississippi and 50.2 per cent lived outside Mississippi.

Eighty-six per cent of the respondents reported that Mississippi was their original home state. And, of the total respondents, 93 per cent indicated that they were married, and of those married, 35 per cent married Mississippi born spouses. Therefore, a good majority of married out-of-state members within the time limit 1909-1965 took mates from locales other than Mississippi. But even then, only 27 per cent live in the home state of their spouse.

Although 14 per cent of the respondents who graduated from the School of Medicine came from some other state or area, only 26 per cent returned home. So, it would appear that their home state did not fare too well in attracting back the departed physician.

The average length of stay in the current state of those returning questionnaires was 14.6 years. Of course, this figure shows the extremes of the early classes as well as the more recent ones.

Since the two-year graduate was forced to leave Mississippi to complete his requirements for the medical doctor degree (except the class of 1955), 23 per cent chose to remain in the same state where their remaining two clinical years were completed.

A more significant statistic, however, shows that 83 per cent of all responding took specialty training, and of this figure, 48 per cent still live where they were involved in this residency instruction. Necessarily, the majority of specialists did not stay in the state where they received this training,

but they, on the other hand, did not return to Mississippi either.

Interestingly, many of those physicians responding gave Mississippi a good effort since 32 per cent stated that they had engaged themselves in the private practice of medicine in Mississippi, but for one reason or the other left again. It seems that for those who did come back to Mississippi for a period of private practice, a little less than five years went by on the average before they sought other domiciles.

Of more recent interest regarding graduates of the four-year school during the period from 1957-1965, 57 per cent of the number as of Oct. 15, 1972, showed residence in Mississippi. Further, of the out-of-state four-year people responding, 84 per cent had taken specialty training with 74 per cent of this group having accomplished this outside Mississippi and for some reason chose to stay outside Mississippi.

In summary then, it seems that from our 1964 study when 56 per cent of our medical alumni to 1955 were living outside Mississippi, an improvement has been shown to a 50.2 per cent level of attrition. And to repeat, when looking at the four-year group alone, the out-of-state percentage falls to 43 per cent. The trend "appears" to indicate that more and more of the younger graduates are remaining, or, at least, returning to Mississippi.

Statistically speaking, it seems that having the opportunity to train in a medical center such as now exists in The University of Mississippi will continue to keep physicians in Mississippi. Before, leaving the state for specialty training seemed to stimulate remaining out-of-state.

And as a sidelight, the physicians who are unmarried taking specialty training in Mississippi, rather than being forced to go without the state, seem to have more of an opportunity to meet Mississippi spouses with the concomitant stimulation to remain at home.

Of the total responses received, 30 per cent indicated that economics of one type or another influenced their decision to reside out of Mississippi. This feature occurred primarily in the classes up until 1960, for after that economics was very seldom mentioned. Depression years and pre-Medical Center years seemed to encourage more financial remarks than after the development of the Jackson campus. Many indicated that at the time of their eligibility for practice, no suitable offer was forthcoming or the need for their specialty did not exist.

Another point of influence was mentioned in several of the responses from those physicians of an age to have children of school age. These comments pointed to the social and political changes experienced during the 60's, primarily the public school problems.

And the overriding issue seemed to be the lack of a medical center for the state prior to 1955, which encouraged many medical alumni to depart the state for those metropolitan areas of the United States which could support specialty work in a manner more superior than pre-Medical Center Mississippi.

C. W. PRICE
Alumni Secretary
University Medical Center

AMA Rules on M.D. Name in Advertising

At its recent meeting in Washington, D. C., the AMA Judicial Council adopted the following reaffirmation of an existing opinion and asked that the reaffirmation be widely publicized.

From time to time in the past physicians have permitted the use of their names in commercial advertisements. It was not a widespread, frequent or accepted practice.

At this time the Judicial Council sees definite evidence of a break with ethical tradition. Commercial advertisement carrying the name, photograph and professional appointments of physicians are conspicuous in both public and professional periodicals.

Regardless of disclaimers and alleged educational claims for the ad, the intent of using a physician's name and photograph in an advertisement is simply to draw attention to the ad. The physician who permits his name and photograph to be so used is permitting himself and his profession to be exploited.

The Judicial Council has previously stated that it is demeaning to the medical profession for the physician to permit the use of his name and professional status in the promotion of commercial enterprises. Out of respect for his profession, a physician should not allow his name or the prestige of his professional status as a physician to be used in the promotion of commercial enterprises.

To the extent that the facts of a particular case indicate that the honor and dignity of the profession are denigrated then charges of conduct contrary to Section 4 of the Principles of Medical

Ethics should be brought before and fully reviewed by the ethics committee of the physician's component medical society.

Circumstances will suggest and facts disclose whether some consideration of value was given the physician for the use of his name and photograph by the advertiser. Circumstances will indicate the purpose of the advertisement.

In view of the proliferation of advertising of this nature, the Judicial Council reaffirms its opinion:

It is demeaning to the medical profession for a physician to permit the use of his name and professional status in the promotion of commercial enterprises. A physician may freely engage in business ventures outside the practice of medicine. However, out of respect for his profession, he should not allow his name or the prestige of his professional status as a physician to be used in the promotion of commercial enterprises.

In conclusion, the council condemns as unethical the action of the physician who *is found* to place personal, selfish, financial, or venal interests ahead of the high ideals of the medical profession. The council wishes to call this reaffirmation of its opinion to the attention of all physicians and to all ethical medical publications.—Adopted by the AMA Judicial Council, April 28, 1973.



"I think he's well enough to go home."

Physicians, Schools Conference Set

The 14th National Conference on Physicians, Schools, and Communities is being held Oct. 4-5, 1973, at the LaSalle Hotel in Chicago. The theme of the meeting is "Improving the Quality of Life: The Impact of Schools."

The quality of life is determined by many complex societal forces. Only through synergistic action can institutions, professions, and individuals influence societal forces enough to significantly improve the quality of life.

The purpose of this conference is to make persons aware of the profound influence of the schools. It is designed to help persons related to schools recognize the positive and negative influences of today's schools and to examine ways in which positive influences can be reinforced, strengthened, expanded, and enhanced.

The conference format will include audience participation, practical demonstrations, role playing, speakers, and discussions. The activities will focus on school health services, health instruction, and community relationships, administration, and environment.



NEW MEMBERS

ALLEN, CLYDE R., Laurel. Born Clarksdale, Miss., Nov. 21, 1941; M.D., University of Mississippi School of Medicine, Jackson, Miss., 1966; interned Memorial Hospital, Savannah, Ga., one year; residency in radiology, 1969-1972, same; elected by South Mississippi Medical Society.

ELLIS, BERT H., Meridian. Born Ludlow, Ky., Jan. 1, 1916; M.D., University of Louisville School of Medicine, Louisville, Ky., 1943; interned St. Elizabeth Hospital, Covington, Ky., one year; surgery residency, Louisville, Ky., V.A. Hospital, 1945-47; anesthesiology residency, Louisville General Hospital, Louisville, Ky., 1954-56; elected by East Mississippi Medical Society.

PITTMAN, JAMES A., Laurel. Born Tylertown, Miss., Aug. 17, 1936; M.D., Tulane University School of Medicine, New Orleans, La., 1962; interned Southern Pacific General Hospital, San Francisco, Calif., one year; surgery residency, same, 1963-67; elected by South Mississippi Medical Society.

Medico-Legal Briefs

Beginning this month, the JOURNAL MSMA will feature a recent court decision or legal article of interest to medicine.

SURGEON EXPELLED BY AMERICAN COLLEGE OF SURGEONS

A surgeon who was expelled from the American College of Surgeons for engaging in surgical procedures that did not conform with accepted standard practices was held by a federal appellate court to have been afforded adequate due process.

The surgeon, who was in his sixties, became a Fellow in the College in 1940 and remained a member in good standing until 1971. In March, 1969, because of questions by a hospital medical staff concerning the surgeon's treatment of patients, the hospital executive committee temporarily suspended his surgical privileges and initiated a review of certain procedures.

On determination that his care of patients was inadequate, the hospital credentials and executive committees entered into a voluntary agreement with the surgeon, limiting his practice to general surgery and requiring him to have a board-certified surgeon assist in all major operations and postoperative care.

In April, 1970, the hospital staff voted to allow the surgeon to continue restricted practice of surgery at the hospital but requested that the College investigate his conduct. In August, 1970, a committee from the college met with the hospital credentials committee, the president of the medical staff, the hospital administrator, and the surgeon.

An investigation was made after the meeting, and the committee found that curtailment of the surgeon's practice was justified. The committee recommended that the surgeon be censured by the Regents of the College for failing to live up to his agreement with the credentials and executive committees.

The College decided to initiate a formal examination of the surgeon's professional conduct, giving him written notice of a hearing. The surgeon attended the hearing without legal counsel and voluntarily discussed with members of the Central Judiciary Committee each of the cases enumerated on the notice, plus two cases not specified.

The surgeon admitted engaging in surgical procedures that did not conform with accepted standard practices. During a period of two years he had performed a radical mastectomy without a prior biopsy, after which examination revealed

no cancer; performed a total hysterectomy, bilateral salpo-oophorectomy, and appendectomy on the basis of a Type III Pap smear without prior biopsy; performed a simple mastectomy in the outpatient department on a 91-year-old woman who subsequently required hospitalization; ordered only one series of tests for a patient after an operation for carcinoma of the colon when daily tests should have been requested, after which the patient died; and failed to arrange adequate postoperative care for a patient who underwent a cholecystectomy and who was readmitted because of generalized peritonitis and later transferred to another hospital for repair of a surgically severed common bile duct.

The Committee permitted the surgeon to offer explanation of his professional procedures. At the conclusion of the hearing, the Committee voted to recommend to the Board of Regents of the College that the surgeon be offered the choice of resigning his fellowship or facing formal expulsion.

He was notified that he had the right to appear before the Board of Regents to state his objections to the Committee's recommendation. He appeared, accompanied by legal counsel but, instead of objecting to the procedures used in conducting the investigation and hearings, he appealed to the Board for a less severe sanction than expulsion from the College.

The Board rejected the surgeon's plea for clemency. He was notified in writing that he could either resign or face formal expulsion. The notice detailed the grounds for the decision, referring to the surgeon's handling of the five specified cases and to his failure to arrange for adequate coverage for seriously ill patients during his absence.

The surgeon sought relief from the court, which denied his motion and granted the College's motion for summary judgment. The court held that it did not have power to interfere with expulsion of a member of a private, voluntary association when such expulsion complied with procedures established by the association's bylaws and articles of incorporation.

The surgeon appealed, contending that the trial court erred in its findings and that rudimentary due process principles governed expulsion from private associations where such expulsion impaired the member's ability to pursue his livelihood. The court agreed that expulsion impaired, if it did not destroy, the surgeon's ability to pursue his profession. Most of the hospitals with which he was affiliated required membership in either the College or the Board of Surgeons (of which he was not a member).

However, the court found it unnecessary to reach the question of rudimentary due process, holding that it was apparent from the record that such protection was afforded to the surgeon. He was given adequate notice of the investigation and, since he entered into a voluntary agreement with the hospital medical staff to restrict his surgical practice, could be assumed to have been aware of the reasons for the inquiry, the court said.

The surgeon was given ample opportunity to present a defense to factual allegations at the hearings. Although the surgeon contended that he was denied an opportunity to confront and cross-examine his accusers, the court pointed out that the accusing witnesses were not members of the hospital or the College but were the medical records. Although the surgeon had the full right of confrontation and explanation regarding the records, the court said, he did not deny their accuracy. Finding that the surgeon was afforded adequate due process, the court affirmed the judgment of the lower court.—*Duby v. American College of Surgeons*, 468 F.2d 364 (C.A.7, Oct. 11, 1972)—Reprinted from *The Citation*, vol. 26, no. 11, p. 172.

YEATES, NAMO, Lula. M.D., Tulane University School of Medicine, New Orleans, La., 1910; died April 15, 1973, age 90.



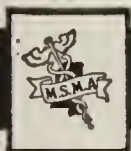
LETTERS

SIRS: I am editing a book on renowned and notable physicians and their faith.

I am interested in obtaining contributors who have a special knowledge of the faith and/or religion of one or more notable and outstanding physicians. I am considering such physicians as Sir William Osler, and Sir William Fleming; however, the notable physicians could still be alive.

Anyone interested in this project or who would suggest renowned physicians to write about may contact me at the following address:

CLAUDE A. FRAZIER, M.D.
4-C Doctor's Park
Asheville, NC 28801.



DEATHS

CLEMENTS, KENNETH MELVIN (F-NL), Gulfport. M.D., University College of Medicine, Richmond, Va., 1953; interned one year, Riverside Hospital, Newport News, Va.; psychiatry residency, same hospital, one year, 1954-55; psychiatry residency, Virginia Hospital, Gulfport, Miss., 1959-1962; died April 19, 1973, age 46.

MOE, CHESTER CHARLES, Richton. M.D., The Hahnemann Medical College and Hospital, Chicago, Ill., 1909; interned same, one year; Emeritus member of MSMA & AMA; member of Fifty Year Club MSMA; member of South Mississippi Medical Society; died April 6, 1973, age 88.

RATLIFF, DAVID A., Columbia. M.D., College of Medicine and Surgery, Chicago, Ill., 1909; Emeritus member of MSMA & AMA; member of Fifty Year Club MSMA; member of South Mississippi Medical Society; died Feb. 27, 1973, age 88.

Jackson Center Sponsors Resources Exchange

"Parade of Resources" is a new idea in communications at the Jackson Mental Health Center. On the first Tuesday of each month, representatives of various service agencies are reporting on the work of their respective organizations.

Jayne Smith, coordinator of information and referral services at the Jackson center, describes the format as "a community awareness series to better acquaint the community with its various help organizations—resources available to children, youth, adults, elderly, disadvantaged, agencies on alcohol, drugs, emergencies. . . ."

Mrs. Smith invites anyone in the community—professional and general public—"to meet with us" on each first Tuesday at 10 a.m. in the Jackson Mental Health Center in the St. Dominic-Jackson Health Services complex. She said over 200 organizations have been invited to describe their services.

**Because you
practice
medicine in the
Magnolia State...**

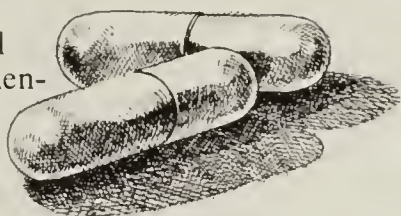


You carry one of the heaviest patient loads in the country. Since this may include a number of patients with gastritis and duodenitis... you should know more about Librax®

Helps reduce anxiety-related G.I. symptoms

A patient may blame his attacks of gastritis or duodenitis on "something he ate" but contributing factors may be his job, marital problems, financial worries or some other unmentioned source of stress and excessive anxiety that exacerbated the condition.

Whether it is "something he ate" or "something eating him," adjunctive Librax can help. Librax offers both the antianxiety action of Librium® (chlordiazepoxide HCl), that can help relieve excessive anxiety, and the dependable anticholinergic action of Quarzan® (clidinium Br), that can help reduce gastrointestinal hypermotility and hypersecretion.



Patient-oriented dosage — up to 8 capsules daily in divided doses

For optimal response, dosage can be adjusted to suit patient needs—1 or 2 capsules, 3 or 4 times a day.

To help relieve anxiety-linked symptoms in gastritis and duodenitis

adjunctive
Librax®



Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Before prescribing, please consult complete product information, a summary of which follows:

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions

in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.



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PERSONALS

ARACELI ALVAREZ and VICENTE LUCIANO, both from the Philippines, have joined the staff of the North Sunflower County Hospital. Dr. Alvarez is an anesthesiologist and Dr. Luciano is a radiologist.

DAVID A. BALL has associated with the Passman and Taylor Orthopedic Clinic, P.A. for the practice of orthopedic surgery at 100 Trace Town in Natchez.

FRANK J. BAIRD and A. ROBERT DILL of Columbus announce the removal of their offices from 1001 Main Street to 425 Hospital Drive.

A. V. BEACHAM of Magnolia is serving as chairman of the Health Facilities Committee of the Southwest Mississippi Health Planning Council.

RICHARD L. BLOUNT of Jackson gave a paper at the third biennial Cataract Surgical Congress in Miami.

GUY CAMPBELL of Jackson is serving as a national board member of the American Lung Association.

JACK Q. CAUSEY of Centreville has been elected to Fellowship in the American College of Physicians.

DAVID B. DALE of Prentiss announces that he has accepted a position with the Mississippi Baptist Hospital in Jackson beginning July 1.

ARTHUR A. DERRICK, JR., of Durant was awarded a gift at the annual athletic banquet by the Holmes Junior College athletic director for his service as team physician.

CARL EVERS and GEORGE V. SMITH of Jackson and the University Medical Center are serving as volunteers of the Hinds County Unit of the American Cancer Society. As physician volunteers, they present lifesaving information about cancer to clubs and organizations of the county.

LYNE S. GAMBLE and BEN F. HAND of Greenville received certificates of appreciation from the state director's office of the Selective Service Office in Jackson. Drs. Gamble and Hand have served as medical advisors to the Washington County Local Board No. 82 since 1948.

WILLIAM N. HENDERSON, student health physician at the University of Southern Mississippi at Hattiesburg, has been appointed director of stu-

dent health services at the University of Idaho, effective July 1.

PERCY HOWELL of Meridian and the staff of the East Mississippi State Hospital has announced his retirement from practice.

M. BECKETT HOWORTH of Oxford was guest speaker at the kickoff breakfast for Grenada County Cancer Society workers held recently in Grenada.

MICHAEL E. JABALEY of Jackson and the University Medical Center has been elected an active member of the American Society for Surgery of the Hand.

JOHN C. LONGEST of Starkville received the Service Award at the annual Faculty Awards Dinner sponsored by the MSU Alumni Association. Dr. Longest serves as director of the Student Health Service and has personally organized the MSU Patrons of Excellence Program.

C. FOSTER LOWE of McComb was recently elected chairman of the Southwest Mississippi Health Planning Council.

RONALD R. LUBRITZ and VINCENT J. DERVES of Hattiesburg announce the relocation of their offices to 6 Medical Boulevard.

EDWIN M. MEEK announces the opening of his office for the practice of obstetrics and gynecology at 204 Eighth Street in Greenwood.

JOHN A. MURFEE of Columbus announces the removal of his office to 425 Hospital Drive.

THOMAS L. PURVIS, JR., of Natchez was installed as a Fellow of the American College of Obstetricians and Gynecologists at its 21st annual meeting in Miami Beach.

GILBERT O. SPENCER of Columbus announces the removal of his office from 501 7th Street North to 425 Hospital Drive.

SHELBY SMITH of McComb was a guest speaker at a Cystic Fibrosis Workshop held at Southwest Mississippi Junior College. Dr. Smith is a pediatrician.

HENRY THIEDE of Jackson and the University Medical Center met with the Southern Perinatal Association steering committee in Memphis.

W. LAMAR WEEMS of Jackson and the University Medical Center participated in sessions of the Southeastern Section of the American Urological Association in West Palm Beach.

DAVID B. WILSON of Jackson and UMC spoke to the Oxford Rotary Club in April.



Book Reviews

Australia Antigen and Hepatitis. By B. S. Blumberg, A. I. Sutnick, W. T. London, and I. Millman. 74 pages with illustrations. Cleveland, Ohio: The Chemical Rubber Co. Press, 1972. \$12.50.

The authors state in their introduction that this bound publication is essentially the same work previously published in *CRC, Critical Reviews in Clinical Laboratory Sciences*, and includes a review of everything published on Australia antigen up to July, 1970. The monograph covers such topics as methods of detection, geographic and genetic characteristics, association of AuAgn (Australia Antigen) with the various hepatitises and other diseases, immune mechanisms, physical and chemical properties, and the related antibody. There is an excellent bibliography and a supplemental bibliography bringing the references listed up through 1971.

With as much done and published on AuAgn from July, 1970, until the present time, the current usefulness of this monograph is questionable. They state that AuAgn is associated with "infectious" (type A, short-incubation) hepatitis as well as "serum" (type B, long-incubation) hepatitis, and this is currently not felt to be the case. Their preferred method of detection is the agar gel diffusion rather than counterelectrophoresis or radioimmunoassay, which are currently felt to be superior methods. Because of the outdated views (since no knowledge amassed after mid-1970 is utilized), in a field with rapidly accumulating information and changing concepts, this monograph cannot be of much practical value to the practicing physician of 1973.

WILLIAM M. MCKELL, M.D., Jackson, Miss.

Acta Europaea Fertilitatis. Edited by J. Botella Llusia, F. Marchesi, R. Palmer, and G. I. M. Swyer. Vol. 3, Nos. 1 and 2. Padova, Italy: Piccin Medical Books, 1972.

Acta Europaea Fertilitatis is a quarterly journal published in Italy with an international European list of editors and editorial board.

As the title would imply, the articles are mainly related to problems of fertility. The journal is most

analogous to the official journal of the American Fertility Society *Fertility and Sterility*.

The articles published are primarily either short reviews with appended animal experimentation results or clinical series related to infertility and fertility problems.

There are no isolated case reports in either journal submitted.

The journal would be of most interest to the academician working in infertility or sterility. It would not, in general, be of interest to the clinical generalist or practicing obstetrician and gynecologist.

DONALD M. SHERLINE, M.D.
Jackson, Miss.

Psychiatrist-Neurologist Joins Oxford Center

Dr. Joseph Tramontana, director of the Region II Mental Health and Retardation Center, which serves Calhoun, DeSoto, Lafayette, Marshall, Panola, Tate, and Yalobusha counties, has announced that Dr. Charles H. Hubbert has accepted the position of Chief of Medical Services.

Dr. Hubbert, who is 34 years old, was born in Lambert, Miss. He received his B.S. degree in 1960 from the University of Mississippi and his M.D. in 1963 from the University of Mississippi School of Medicine.

Following a 12 month internship at Baptist Hospital in Memphis, he did the following residencies: psychiatry—University of Tennessee, Memphis, 3 years; internal medicine—Baptist Hospital, 2 years; and neurology—Baptist Hospital, 2 years. Dr. Hubbert practiced psychiatry for one year at the Clarksdale, Mississippi, Mental Health Clinic (1968-1969) and is presently assistant professor of psychiatry and neurology, University of Tennessee Medical Units, Memphis.

Since last October, Dr. Hubbert has worked as a psychiatric consultant for the Region 2 center one day a week. Beginning in July, he will consult two days a week, and he will move to Oxford and take on his new position on Oct. 1, 1973. Effective on that date, Dr. Hubbert will work for the center three days a week but will be available for hospital admissions and emergency services on a full-time basis.

Diphtheria Is Still a Threat

Diphtheria is still a dangerous threat to large groups of American children who have not been fully immunized, says a report in the *Journal of the American Medical Association*.

Reporting on a statistical study of a diphtheria epidemic in San Antonio, Tex., a research team from the Federal Center for Disease Control, Atlanta, Ga., declared:

"Forty-seven years after the introduction of diphtheria toxoid, significant segments of the United States population are still not immunized against diphtheria. Until diphtheria toxoid immunization can be made truly 'routine' for all segments of the population, it is likely that sporadic large outbreaks of diphtheria will continue to occur."

Lack of immunization is most common among the minority groups and among those in lower socioeconomic groups, the survey reports.

In 1970, 195 cases were reported in San An-

tonio. Rates were highest for children 5 to 14 years old. The rate for blacks and Chicanos was 12.5 times as high as that for Anglos. The incidence for the upper 25 per cent of the population by socioeconomic status was 5.6 cases per 100,000; for the lower 25 per cent it was 62 cases per 100,000.

Once the epidemic breaks out, it is too late to begin a crash vaccination program, the researchers found.

"Mass immunization programs conducted at the peak of the epidemic were not associated with a prompt reduction in incidence," they say.

A survey in 1969, cited by the authors, showed that only two-thirds of children 5 to 14 years living in central cities were fully immunized. San Antonio's immunization level was much lower than the national figure, and health authorities launched a widespread vaccination program. The campaign helped, but it did not reach all of those in the vulnerable age groups and for some it came too late.

Authors of the study are Drs. Edgar K. Marcuse and M. Gilbert Grand.

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Dr. Derrick Is Inaugurated President, Dr. Davis Is Named President-elect

Dr. J. T. Davis of Corinth was named president-elect of the association at the closing meeting of the 105th Annual Session, and Dr. Arthur A. Derrick, Jr., of Durant was inaugurated 1973-74 president, succeeding Dr. Charles R. Jenkins of Laurel.

The four-day meet was headquartered at the Sheraton-Biloxi and featured meetings of the seven scientific sections, meetings of 15 specialty societies, and medical alumni and social occasions. More than 35 essayists presented a varied program which drew praise of registrants.

The Coast annual session had a registration of 835 which included 395 members, 86 M.D. guests, 16 residents, 3 interns, 8 medical students. Others included 106 exhibitors, 214 Auxiliary members, and 7 staff.



Three years of the association's presidency are represented by, from left, Dr. Charles R. Jenkins of Laurel, immediate past president, 1972-73; Dr. Arthur A. Derrick, Jr., of Durant, newly inaugurated MSMA president, 1973-74; and Dr. J. T. Davis of Corinth, the new president-elect, 1974-75.

Handling a heavy business agenda, the House of Delegates acted on 15 reports, 4 of which were from the Board of Trustees, and 12 resolutions. Five reference committees conducted hearings before which members and guests appeared for discussion and debate.

Dr. Charles R. Jenkins addressed the opening meeting of the House of Delegates on April 30 on national health insurance, Professional Standards Review Organizations, the Mississippi Foundation for Medical Care. The 1972-73 president emphasized the need for unity in medical organization and that medical societies should be responsive to the voice of the younger physician.



Dr. C. A. Hoffman of Huntington, W. Virginia, president of the American Medical Association, appeared as principal guest speaker of the annual session. He addressed the House of Delegates at the opening meeting.

Sharing the rostrum spotlight with Dr. Jenkins was Dr. C. A. Hoffman of Huntington, W. Va., president of the American Medical Association, who discussed physicians' assistants, M.D. unions, PSROs, Health Maintenance Organizations and



Past presidents of the association enjoy fraternal and traditional breakfast with special guests, Drs. Jenkins and Derrick, candidates for select circle. Below, chairmen of three reference committees report to the House of Delegates at its concluding session. From lower left, they are Drs. Frank W. Bowen of Carthage, chairman of the Reference Committee on Miscellaneous Business; Sidney O. Graves of Natchez, chairman of the Reference Committee on Reports of Officers and Board of Trustees; and Max L. Pharr of Jackson, chairman of the Reference Committee on Medical Practices.



105th Annual Session,

April 30-May 3, 1973

DELEGATES ACT ON MAJOR ISSUES AT BILOXI

The House of Delegates at the 105th Annual Session of the Mississippi State Medical Association handled a busy agenda of 15 reports and 12 resolutions. The official "Transactions" of the meeting will be published in the August JOURNAL MSMA.

Hearings were conducted by reference committees before which discussion and debate were heard on Monday, April 30. The committees reported to the House on Thursday, May 3, where final action on all reports and resolutions took place.

Among major actions by the House were approval of reports and resolutions which:

—Established a study committee composed of members of the House of Delegates to recommend a redistricting of MSMA trustee districts so that each district shall include substantially equal numbers of association members.

—Referred for study proposals to limit Board of Trustees' terms of office to two three-year terms and to make the president, secretary-treasurer and speaker of the House of Delegates voting members of the Board.

—Endorsed necessary legislation to implement and give statutory protection to an expanded role for the qualified nurse based upon local needs and desires and approval by the Mississippi State Board of Health and Mississippi Board of Nursing.

—Directed the association-sponsored Mississippi Foundation for Medical Care, Inc., to proceed to organize PSROs in Mississippi as required by Public Law 92-603 and within the context of the principles of the MFMC as voluntarily endorsed by its membership.

—Commended the American Medical Association and the American Bar Association for a jointly sponsored program to improve medical and health services in the nation's prisons, jails and juvenile detention facilities and pledged the association's support in this regard.

—Directed organization of county legislative contact committees and the formulation of a "health voting index" on each member of the 1972-76 Mississippi legislature.

—Expressed opposition to licensing of physician assistants and emphasized that physician assistants should work under the direct supervision of physicians.

In other actions, the House of Delegates:

—Commended President Jenkins for his outstanding work on behalf of the association.

—Expressed appreciation to Dr. Raymond S. Martin, Jr., for his work as Secretary-Treasurer and Chairman of the Council on Scientific Assembly.

—Expressed support for Section 8806-10 (a) (2), Mississippi Code of 1942, dealing with citizenship and residence of applicants for licensure as registered nurses.

—Encouraged all members to prepare scientific articles and editorials for publication in the JOURNAL MSMA.

—Adopted a "Summary of Facts" on the health care economy and urged all members to bring the "Summary" to the attention of their patients.

—Commended the Woman's Auxiliary, Ole Miss Medical Alumni Association and Committee on AMA-ERF for the largest AMA-ERF contribution to the University of Mississippi School of Medicine in the history of the program.

—Adopted a program of survey and accreditation of institutions and organizations with continuing medical education of local scope and focus.

—Adopted "Guiding Principles" for the association to seek in the implementation of H.R. 1 (Public Law 92-603).

—Endorsed the new AMA Medcredit proposal and urged support from the state's Congressional delegation.

—Directed that physicians be made more aware of the peer review concept and be urged to submit grievances they have against third party payors.

—Stated that if a State Department of Mental Health is created it should have a physician director and strong physician representation on its governing board.

—Urged each member of the association to recruit new members.

—Adopted a recommendation that the immediate past president of the association sit with the Board of Trustees.

The Reference Committee on Credentials reported seating 90 delegates on April 30 and 83 delegates on May 3.

Serving as Reference Committee chairmen were Drs. Sidney O. Graves of Natchez, Reports of Officers and Board of Trustees; Frank W. Bowen of Carthage, Miscellaneous Business; Raymond S. Martin, Jr., of Jackson, Constitution and By-Laws; Max L. Pharr of Jackson, Medical Practices; Paul H. Moore of Pascagoula, Rules and Order of Business; and Raymond S. Martin, Jr., of Jackson, Credentials.

coming legislation. He predicted that national health insurance would be slow in coming and that possibly catastrophic coverage would be enacted next year.

A gift of \$16,540.56 was made to the University Medical Center by the state association's AMA-ERF campaign.

New vice presidents named to serve in 1973-74 are Drs. Whitman B. Johnson of Clarksdale for the northern area, William M. Gillespie, Jr., of Meridian for the mid-state area, and David M. Owen of Hattiesburg for the southern area of the state.

Dr. Myron W. Locky of Jackson was elected associate editor of the JOURNAL MSMA. Outgoing editor is Dr. Thomas W. Wesson of Tupelo.

Dr. James P. Spell of Jackson was elected to a three-year term as secretary-treasurer of the association.

Dr. G. Swink Hicks of Natchez was re-elected as delegate to AMA and Dr. Stanley A. Hill of Corinth was re-elected to another term as alternate delegate to AMA.

Delegates, tallied at 83 in the May 3 balloting, elected Dr. Robert S. Caldwell of Tupelo District 3 Trustee to succeed Dr. J. T. Davis of Corinth who had served the constitutional maximum of three consecutive terms and was not eligible for re-election. Drs. Lyne S. Gamble of Greenville, District 1, and James O. Gilmore of Oxford, District 2, were re-elected.



Dr. William A. Long, Jr., of Jackson was 1973 winner of the MSMA-Robins Award for outstanding community service by a physician. President Jenkins, left, and Mr. Willard Duvall of the A. H. Robins Company, right, made the presentation. Dr. Long was cited for his work with youth and the Youth Crisis Center in Jackson.



Delegates show concentration at closing meeting of the House when reports of reference committees are presented for discussion and voting.



Members of the Fifty Year Club at annual session participated in their annual special luncheon meeting. Club "officers" were Board chairman J. T. Davis, at head of table, and Mrs. Barbara Shelton, MSMA membership director, who serves as club secretary. Middle left, three reference committees are shown in action as members debate the issues. From top are the Reference Committee on Medical Practices, Reference Committee on Reports of Officers and Board of Trustees, and Council on Constitution and By-Laws.



Elected to the Council on Budget and Finance were Drs. Sidney O. Graves of Natchez and Walter H. Rose of Indianola.

Dr. Arthur E. Brown of Columbus was re-elected to the Council on Constitution and By-Laws. Named to the Judicial Council were Drs. William E. Weems of Laurel, Wendell B. Holmes of McComb, and James T. Thompson of Moss Point.

Re-elected to the Council on Legislation was Dr. John G. Caden, Jr., of Jackson. Newly elected are Drs. George L. Arrington, Jr., of Meridian and Ed Pennington of Ackerman.

Dr. Charles N. Floyd of Gulfport was elected to the Council on Medical Education while Drs. Charles R. Jenkins of Laurel, Jack A. Atkinson of Brookhaven and Bedford F. Floyd, Jr., of Gulfport were named to the Council on Medical Service.

Six physicians were nominated for membership on the State Board of Health—three from each of two districts. Governor Waller will choose one nominee from each district. Nominated from District 1 were Drs. Benton M. Hilbun of Tupelo, G. Leroy Howell of Starkville and Lee H. Rogers of Tupelo. Nominated from District 3 were Drs. L. Stacy Davidson of Cleveland, John G. Egger of Drew, and Donald R. Ellis of Clarksdale.

The four-day annual meeting was approved for 12 elective hours and 4 prescribed hours of credit for continuation study requirements by the American Academy of Family Physicians.

Mrs. William H. Preston, Jr., of Booneville was inaugurated president of the Woman's Auxiliary to the MSMA.

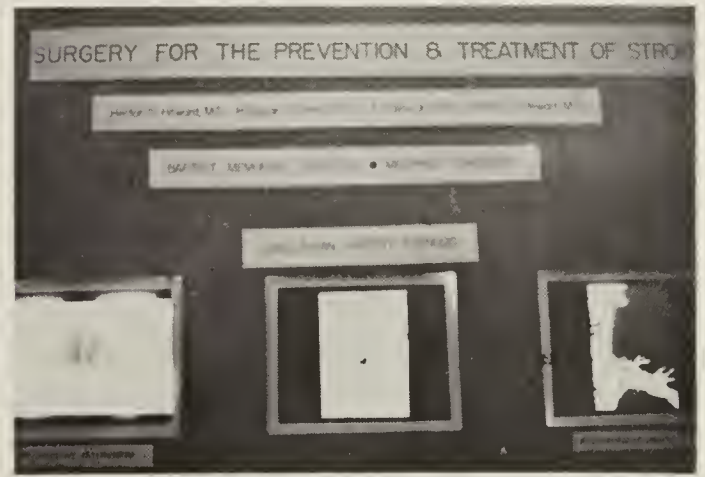
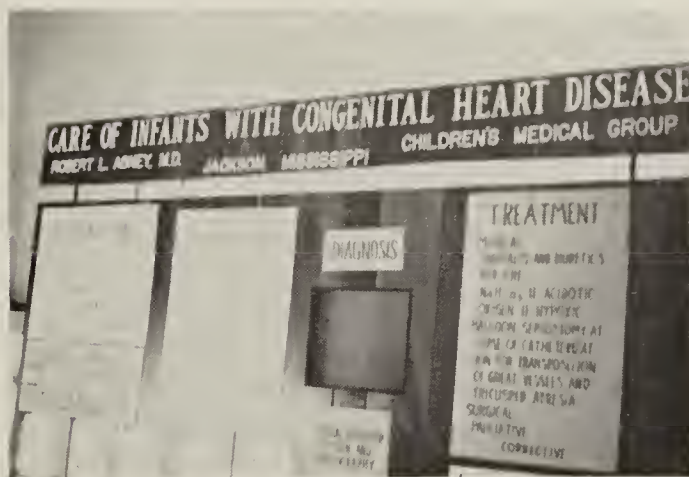
New officers elected by the ladies are Mesdames John McRae, Jr., of Laurel, president-elect; Dan Reikes of Hattiesburg, first vice president; Jim Barnett, Jr., of Brookhaven, second vice president; Patrick Pierce of Long Beach, third vice president; T. Lowell Ketchum of Ripley, fourth vice president; W. A. Brown, Jr., of Mathiston, recording secretary; Henry Webb of Jackson, treasurer; and Louis Lehmann of Natchez, parliamentarian.



Top left, MSMA chairman of Council on Scientific Assembly Dr. Raymond S. Martin, Jr., of Jackson presents Dr. Richard C. Miller of the University Medical Center with an engraved plaque for winning first place in the member competition for scientific exhibits. Dr. Miller's and Dr. Patricia Moynihan's exhibit,



"Intravenous Nutrition," is shown at center left. Top right, Dr. Martin presents Dr. J. T. Davis, Jr., of Memphis the Scientific Achievement Award, a sculptured bronze medallion, in recognition of the best presentation by a nonmember. The exhibit, "Surgery for the Prevention and Treatment of Stroke," by Drs. Davis, Hector S. Howard, H. Edward Garrett and Charles V. Stewart, is pictured at lower right. Winning second place in the member category was Dr. Robert L. Abney, III, of Jackson, with his exhibit, "Care of Infants with Congenital Heart Disease," pictured at lower left. Receiving honorable mentions were: "Charnley Total Hip Replacement," by Drs. John G. Caden and Clyde X. Copeland, Jr., of Jackson; "Surgery for the Heart Attack," by Drs. Akio Suzuki and James D. Hardy of the University Medical Center; "University of Alabama Maxillofacial Prosthetics Treatment and Training Center," by Dr. Iradj Soondi of Birmingham; "Aorto-Coronary Bypass Surgery for the Relief of Angina Pectoris," by Dr. Thomas L. Kilgore of Jackson; and "Serous Otitis Media," by The Ear, Nose and Throat Surgical Group, P.A., of Jackson.





Top left shows Monday morning Reference Committee breakfast when vice speaker Walter H. Simmons of Jackson goes over rules and conduct of reference committees for newly-appointed reference committee members. Top right, Rep. Milton Case was guest speaker before the Wednesday luncheon of the Mississippi Society of Internal Medicine. Lower center, Mrs. William H. Preston, Jr., of Booneville, newly inaugurated president of the Woman's Auxiliary, addresses the House of Delegates. Mrs. Clarence Webb of Jackson, outgoing president, is seated at left. Lower photograph shows the Board of Trustees at one of many meetings held during convention week.



Specialty Societies Hold Concurrent Meetings

A total of 15 specialty societies and related groups met concurrently with the association during the 105th Annual Session at the Sheraton-Biloxi. Scientific sessions and social occasions drew members of almost every specialty.

Pathologists from throughout the state attended the April 29 and 30 meetings of the Mississippi Association of Pathologists. Dr. Hollis Burrow of Greenville was named president-elect; Dr. George F. Smith of Jackson, president; Dr. Roland F. Samson of Jackson, secretary; and Dr. John L. Smith of Hattiesburg, treasurer. Dr. William D. Atchison of Gulfport is immediate past president.

The Mississippi Radiological Society met Sunday, April 29, for a scientific session and social hour. Dr. Ottis Ball of Jackson is president; Dr. Nancy Burrow of Brandon is president-elect; and Dr. Edward L. Gieger of Jackson is secretary. New officers will be elected in January.

The Mississippi chapter of the American College of Surgeons convened on May 1 for a scientific session, business meeting and luncheon. New officers are Drs. Albert L. Meena of Jackson, president; Robert S. Caldwell, of Tupelo, president-elect; and Richard H. Clark, Jr., of Hattiesburg, secretary.

Following the section meeting on May 2, the Mississippi Ob-Gyn Society conducted a luncheon. New officers are president, Dr. George Ball of Jackson; president-elect, Dr. Ira E. Gaddy, Jr., of Gulfport; secretary-treasurer, Kenneth P. Pittman of Jackson; and vice president, Dr. Calvin T. Hull of Jackson.

A luncheon meeting on May 2 highlighted the annual gathering of the Mississippi Society of Internal Medicine. Dr. David M. Owen of Hattiesburg was inaugurated president of the society. New officers elected by the internists are: Dr. Ellis M. Moffitt of Jackson, president-elect, and Dr. James C. Hays of Jackson, secretary.



The Mississippi chapter of the Flying Physicians Association held a cocktail party and dinner on May 1. Dr. Max L. Pharr of Jackson was elected president and Dr. Lee H. Rogers of Tupelo was named secretary-treasurer.

Orthopaedic surgeons convened on April 30 for a luncheon meeting. New officers are: Drs. William C. Sanders of Columbus, president; George W. Truett of Jackson, vice president; James O. Manning of Jackson, president-elect; L. Buford Yerger, Jr., of Jackson, secretary-treasurer; and John G. Caden of Jackson, representative to the American Academy of Orthopaedic Surgeons.

The Mississippi Society of Anesthesiologists met on Sunday, April 29, at the Country Club of Jackson. Dr. Thomas J. Marland of Jackson was elected president. Other officers are Drs. Carlos S. Patino of Jackson, president-elect; Katherine Aldridge of Hattiesburg, secretary-treasurer; James H. Sams of Columbus, national delegate; and James M. Cooper of Tupelo, alternate delegate.

The Mississippi Eye, Ear, Nose and Throat Association conducted a luncheon and business meeting on May 3. Dr. Myron W. Lockey of Jackson is president; Dr. L. Ben McCarty, Jr., of Jackson is secretary-treasurer; and Dr. Patrick L. Pierce of Gulfport is vice president.

State urologists gathered at Biloxi on April 30 for a luncheon and business meeting. Dr. W. Lamar Weems of Jackson assumed the presidency. Other officers are Dr. Martin E. Hinman of Vicksburg, outgoing president; Dr. John P. Elliott, Jr., of Tupelo, president-elect; and Dr. Wafford H. Merrell, Jr., of Jackson, secretary-treasurer.

Family physicians met at a Mississippi Academy of Family Physicians luncheon on May 2. Dr. Eugene Webb of Itta Bena is president. New of-



Top left shows new president, Dr. Arthur A. Derrick of Durant, taking oath of office from Board chairman J. T. Davis. Executive Secretary Charles L. Mathews holds official association Bible. Top right, Dr. James Grant Thompson of Jackson presents traditional past president's pin to Dr. Jenkins. Lower photos picture speaker John B. Howell of Canton and vice speaker Walter H. Simmons of Jackson as they conduct the business of the House of Delegates.





Top left, Dr. Paul H. Moore of Pascagoula, chairman of the Reference Committee on Rules and Order of Business, presents his report to the House. Top right, Dr. Jack A. Atkinson of Brookhaven, chairman of the Council on Medical Service, delivers report. Lower left, Dr. C. D. Taylor of Pass Christian, chairman of the Council on Legislation, reports on the association's legislative activities in 1973. Lower right, Dr. Dennis Ward of Corinth, chairman of the Council on Medical Education, presents proposed continuing education program to the delegates.





Ole Miss medical alumni gathered for a cocktail party and seafood jamboree dinner dance on Monday evening, April 30. Shown are dignitaries who sat at the head table. From left are: Dr. and Mrs. David L. Clippinger of Gulfport (Dr. Clippinger was chairman of the program planning committee); Dr. and Mrs. Paul H. Moore of Pascagoula (Dr. Moore is vice president of the general association); Dr. and

Mrs. John McRae of Laurel (Dr. McRae is medical alumni president); Dr. and Mrs. Bobby King of Iuka (Dr. King is outgoing president); Dr. and Mrs. Robert E. Blount of Jackson (Dr. Blount is dean and director of the University Medical Center); and Dr. and Mrs. Frank W. Bowen of Carthage (Dr. Bowen is medical alumni president-elect).

ficers will be elected at the academy's July 12-14 annual meeting.

The Mississippi Neurosurgical Society held a luncheon program on Wednesday, May 2. Dr. Charles Neill of Jackson is president.

Following the MSMA 105th Annual Session, the Louisiana-Mississippi Ophthalmological and Otolaryngological Society convened at the Sheraton-Biloxi for a three-day meeting. Dr. J. W. McLaurin of Baton Rouge became president and Dr. Ralph Sneed of Jackson is immediate past president. Secretary is Dr. Arthur V. Hays of Gulfport.

A Short Course in Practical Tonometry for Non-Ophthalmologists was again given by the Mississippi EENT Association and the Mississippi Society for the Prevention of Blindness.

An all-day Seminar on Family Planning Methodology was held at the Sheraton-Biloxi on Sunday, April 29. Sponsored by the University Medical Center Department of Obstetrics and Gynecology, the seminar was approved by the American Academy of Family Physicians for six hours of postgraduate credit.

The Mississippi Commission on Hospital Care also met during the annual session on Monday, April 30.



Dr. Charles R. Jenkins, MSMA president, presents Dr. Robert E. Blount a check for \$16,540.56 for the University Medical Center from the Committee on AMA-ERF. The check represents voluntary contributions from the MSMA members and Woman's Auxiliary to the American Medical Association-Education and Research Foundation. Dr. Raymond F. Grenfell of Jackson is chairman of the MSMA Committee on AMA-ERF.



Association officers conduct business of the House of Delegates. From top left are Dr. Jenkins, 1972-73 president; Dr. Raymond S. Martin, Jr., association secretary-treasurer; and Dr. J. T. Davis, Board Chairman and newly-elected president-elect. Lower center is Dr. David M. Owen of Hattiesburg, new president of the Mississippi Society of Internal Medicine. Lower left are officers of the Miss. EENT Association. From left, they are Drs. Ben McCarty of Jackson, secretary-treasurer, Myron W. Lockey of Jackson, president, and Patrick L. Pierce of Gulfport, vice president. Lower right, officers of the Miss. Ob-Gyn Society are from left, Drs. Walter Bourland of Tupelo, immediate past president; George Ball of Jackson, new president; and Calvin Hull of Jackson, vice president. Also elected but not pictured were Drs. Kenneth Pittman of Jackson, secretary-treasurer, and Ira Gaddy of Gulfport, president-elect.





The Mississippi Association of Pathologists officers are pictured from left, Drs. Roland F. Samson of Jackson, secretary; W. Hollis Burrow of Greenville, president-elect; George F. Smith of Jackson, president; and W. D. Atchison of Gulfport, past president. Lower right, the American College of Surgeons, Mississippi chapter, elected officers during the annual session. Dr. Albert Meena of Jackson, at left, is president and Dr. Richard Clark of Hattiesburg is secretary. Also elected but not pictured is Dr. Richard Caldwell of Baldwin, president-elect.

Scientific Assembly Begins Work for '74

The 1974 Annual Session is set for May 6-9 at Biloxi. The Council on Scientific Assembly has already begun planning for the 106th.

Acting by separate sections during the recent 105th Annual Session, the seven components of the Scientific Assembly named new chairmen, and four sections elected new secretaries.

Under the By-Laws, a section chairman serves a term of only one year, but section secretaries are elected for three years. Secretaries of the seven sections are elected on staggered terms.

Each office carries an automatic seat and vote in the House of Delegates to assure proper representation of each scientific section.

Named to head the Section on EENT is Dr. Lee H. Rogers of Tupelo. Dr. James W. Rayner of Oxford enters the first year of his three-year term as secretary.

Heading the Section on General Practice is Dr.





Top left, officers of the Mississippi Urological Society are Drs. W. Lamar Weems of Jackson, at right, president, and Martin E. Hinman of Vicksburg, outgoing president. Also elected but not pictured are Drs. John P. Elliott, Jr., of Tupelo, president-elect, and Wafford H. Merrell, Jr., of Jackson, secretary-treasurer. The Mississippi chapter of the Flying Physicians Association elected Dr. Max L. Pharr of Jackson, at left, president, and Dr. Lee H. Rogers of Tupelo, secretary-treasurer.

William M. Gillespie, Jr., of Meridian. Dr. W. Boyce White of Laurel continues as secretary.

The internists chose Dr. S. H. McDonniel, Jr., of Jackson as chairman of the Section on Medicine. Dr. Joe M. Ross, Jr., of Vicksburg enters the first year of his term as section secretary.

Dr. Walter L. Bourland of Tupelo heads the Section on Obstetrics and Gynecology. Entering his second year as secretary is Dr. Charlton R. Vincent of Laurel.

Dr. Frank M. Wiygul, Jr., of Jackson is the new chairman of the Section on Pediatrics. New secretary of the section is Dr. Robert L. Abney, III, of Jackson.

Dr. Ruby B. Griffin of Calhoun City will chair the Section on Preventive Medicine. Entering the second year of his term as secretary is Dr. Steven L. Moore of Jackson.

New chairman for the Section on Surgery is Dr. Richard A. Johnson of Hattiesburg. Dr. Henry B. Tyler of Jackson enters his first year as section secretary.

Dr. James P. Spell of Jackson, newly elected association secretary-treasurer, is constitutional chairman of the Council on Scientific Assembly.

Dr. Spell said, "The council will be meeting this summer to review preliminary plans for the 106th Annual Session and to begin actively working on the program."

He said that the exhibit prospectus for technical exhibitors will be released this fall. Specialty societies are invited to submit plans for concurrent meetings and requests for assignment of rooms, including those for meal occasions, he added.

The president, Dr. A. A. Derrick, Jr., of Durant, and the president-elect, Dr. J. T. Davis of Corinth, are *ex officio* members of the Council on Scientific Assembly under the By-Laws.

Board of Trustees Names 1973-74 Officers

A new name appears on the roster of the association's nine-member governing body, the Board of Trustees. Elected for a three-year term by the House of Delegates was Dr. Robert S. Caldwell of Tupelo, representing District 3.



The newly elected chairman of the Board of Trustees is Dr. James O. Gilmore of Oxford. Dr. Gilmore is shown here as he presented the report of the Council on Budget and Finance to the House of Delegates.

Dr. Lyne S. Gamble of Greenville, District 1, and Dr. James O. Gilmore of Oxford, District 2, were re-elected to three year terms.

Dr. James O. Gilmore was elected Board chairman. Dr. Everett Crawford of Tylertown is vice chairman and Dr. Gerald P. Gable of Hattiesburg is the secretary. The chairman, vice chairman, and secretary make up the Executive Committee.

Continuing to serve are Drs. Paul B. Brumby of Lexington (District 4), Carl G. Evers of Jackson (District 5), Guy T. Vise of Meridian (District 6), Gerald P. Gable of Hattiesburg (District 7), Everett Crawford of Tylertown (District 8) and James T. Thompson of Moss Point (District 9).

Retiring from the Board after serving the maximum three consecutive three-year terms was Dr. J. T. Davis of Corinth, District 3.

Seven general officers meet with the Board but without the right to vote. They are the president, president-elect, secretary-treasurer, speaker of the House of Delegates, vice speaker, and AMA delegates.

Region 10 Center Opens Inpatient Unit

A new 38-bed inpatient facility was opened in March as a part of the Weems Community Mental Health Center at Meridian. Dr. Reginald P. White, chairman of the Region 10 MH/MR Commission, said the center is designed to accommodate 15 males, 15 females and 8 children or young adolescents.

"This marks a break-through in mental health care," said Dr. White, "Since this is the only inpatient service in the state which offers separate facilities for children and young adolescents."

The floor space for the Weems facility is leased from the East Mississippi State Hospital. Dr. White said patients derive benefits from the use of recreational and occupational therapy departments at East Mississippi State Hospital.

Gulf Coast Center Breaks Ground

Ground was broken on February 8 for a new mental health center facility in Gulfport which will serve Region 13, including Harrison, Hancock, Stone and Pearl River counties. Region 13 Commission Chairman John Dees, of Wiggins, conducted the ceremonies.

The Gulf Coast Mental Health Center has been in operation since September, 1970 in temporary quarters. The new facility will cost \$641,785,

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with \$395,760 coming from a federal community mental health center construction grant and the remainder being provided through a Harrison County bond issue.

Bronchoesophagology, ENT Course Planned

The Department of Otolaryngology, Abraham Lincoln School of Medicine of the University of Illinois and the Eye and Ear Infirmary of the University of Illinois Hospital, will conduct a continuing education course in laryngology and bronchoesophagology Nov. 12-17, 1973.

The course is limited to 20 physicians and will be under the direction of Dr. Paul H. Holinger. It will be held largely at the Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, and will include visits to a number of other Chicago hospitals.

Instruction will be provided by means of animal demonstrations and practice in bronchoscopy and esophagoscopy, diagnostic and surgical clinics, as well as didactic lectures.

Interested physicians should write the Department of Otolaryngology, Eye and Ear Infirmary, 1855 West Taylor Street, Chicago, Ill. 60612.

Emergency Medicine Legislation Proposed

It appears likely that Congress this year will pass legislation to improve emergency medical services throughout the nation. Both the Senate and the House have opened hearings on several bills that would provide federal funds to assist local governments in improving ambulance and emergency room services.

Among the major bills on emergency medical care is one developed by the AMA. Sponsored by Senator J. Glenn Beall (R.-Md.) and by Representative James Hastings (R.-N. Y.), the AMA bills (S. 654 and H. R. 4952) provide for the establishment of a comprehensive emergency medical system across the nation. Direction and financial assistance would be at the federal level; however, the programs would be developed at the community level.

In outlining the AMA bill before a subcommittee of the House, Dr. Roy M. Baker, Jacksonville, Fla., summed up the extent of the problem by excerpting certain statistics from a recent report published by the National Research Council.

"Accidental injury and acute illness generate a staggering demand on ambulance and rescue services, allied health personnel, physicians, and hospitals for the delivery of emergency medical services. Accidental injury is the leading cause of death among all persons aged 1 to 38. Each year more than 52 million U. S. citizens are injured, of whom more than 110,000 die, 11 million require bed care for a day or more, and 400,000 suffer lasting disability at a cost of nearly \$3 billion in medical fees and hospital expenses and over \$7 billion in lost wages. Those requiring hospitalization occupy an average of 65,000 beds for 22 million bed-days under the care of 88,000 hospital personnel. This hospital load is equivalent to 130 500-bed hospitals. Of the more than 700,000 deaths from heart disease each year, the majority are due to acute myocardial infarction and more than half of these deaths occur before reaching a hospital. Approximately 40 million persons seek care each year in hospital emergency departments as a result of accidents, heart disease, stroke, poisoning, diabetic coma, convulsive disorders, and many other illnesses."

In his testimony, Dr. Baker noted as a matter of interest for the committee, there are currently seven two-year emergency residency programs in operation. Beginning on July 1, 1973, there will be an additional seven residency programs operational. In addition, there are three institutions conducting short-course training programs in the field of emergency medicine.

PRESCRIBING INFORMATION Antiminth (pyrantel pamoate) Oral Suspension

Actions. Antiminth (pyrantel pamoate) has demonstrated anthelmintic activity against *Enterobius vermicularis* (pinworm) and *Ascaris lumbricoides* (roundworm). The anthelmintic action is probably due to the neuromuscular blocking property of the drug.

Antiminth is partially absorbed after an oral dose. Plasma levels of unchanged drug are low. Peak levels (0.05-0.13 µg/ml.) are reached in 1-3 hours. Quantities greater than 50% of administered drug are excreted in feces as the unchanged form, whereas only 7% or less of the dose is found in urine as the unchanged form of the drug and its metabolites.

Indications. For the treatment of ascariasis (roundworm infection) and enterobiasis (pinworm infection).

Warnings. *Usage in Pregnancy:* Reproduction studies have been performed in animals and there was no evidence of propensity for harm to the fetus. The relevance to the human is not known.

There is no experience in pregnant women who have received this drug.

Precautions. Minor transient elevations of SGOT have occurred in a small percentage of patients. Therefore, this drug should be used with caution in patients with pre-existing liver dysfunction.

Adverse Reactions. The most frequently encountered adverse reactions are related to the gastrointestinal system.

Gastrointestinal and hepatic reactions: anorexia, nausea, vomiting, gastralgia, abdominal cramps, diarrhea and tenesmus, transient elevation of SGOT.

CNS reactions: headache, dizziness, drowsiness, and insomnia. Skin reactions: rashes.

Dosage and Administration. *Children and Adults:* Antiminth Oral Suspension (50 mg. of pyrantel base/ml.) should be administered in a single dose of 11 mg. of pyrantel base per kg. of body weight (or 5 mg./lb.); maximum total dose 1 gram. This corresponds to a simplified dosage regimen of 1 cc. of Antiminth per 10 lb. of body weight. (One teaspoonful = 5 cc.)

Antiminth (pyrantel pamoate) Oral Suspension may be administered without regard to ingestion of food or time of day; and purging is not necessary prior to, during, or after therapy. It may be taken with milk or fruit juices. Because of limited data on repeated doses, no recommendations can be made.

How Supplied. Antiminth is available as a pleasant tasting caramel-flavored suspension which contains the equivalent of 50 mg. pyrantel base per ml., supplied in 60 cc. bottles.

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Highly effective against
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Non-staining to teeth
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Simple dosage with a
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10-lb. body weight (1 tsp./50 lb.;
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ORAL SUSPENSION

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*Data on file at Roerig. Please see prescribing information on facing page.

Hair in the Ear Can Cause Cough

A hair in the ear can cause a cough. An article in the Mar. 12 issue of the *Journal of the American Medical Association* reports on three individuals who were cured of chronic cough by removal of a small hair that was touching a tympanic membrane in the ear.

It had been known that sometimes wax in the ear, or a foreign body of some sort, or perhaps a cotton swab used to cleanse the ear, could trigger a cough. This is the first time in medical literature, however, that physicians have reported stopping a cough by removing an irritating hair.

Why does a hair on the ear drum cause a cough? The answer is complex, involving an understanding of nerve structure and how nervous impulses can trigger the body's protective mechanisms. The cough is nature's way of clearing the airways of irritating substances. A hair on the tympanic membrane starts a reaction that sends a message to the cough centers.

Authors of the report are three St. Louis researchers, Dr. Allan P. Wolff, Dr. Mark May, and Douglas Nuelle of Washington University School of Medicine.

MSMA Gives Check to SAMA



In support of the state chapter of the Student American Medical Association, MSMA 1972-73 president, Dr. Charles R. Jenkins of Laurel, presented a check for \$250.00 to SAMA officers at the MSMA headquarters building in May. The association contributed the money to help pay delegates' expenses to the national SAMA convention in Chicago, May 4-6. From left are medical students David Irwin, SAMA vice president, Dr. Jenkins, Bert Stront, treasurer, and Doug Rouse, president. All three will be delegates.

Governor Proclaims Medical Assistant Week



Governor William Waller, Mrs. Thelma Van-Cloostere, RN, president, Mississippi Society, American Association of Medical Assistants, and Mrs. Helen Donohoo, president-elect, AAMA, MS, look over the proclamation signed by the governor declaring the week of April 22-28, 1973, as Medical Assistants Week in Mississippi. The state society observed the week by holding their 7th annual state convention in Biloxi, April 27-29.

Troops' Drug Abuse Begins at Home

The drug abuse epidemic among U. S. servicemen in Southeast Asia got its start before the troops left home, declares a physician who for two years served as drug control officer for the U. S. Army Hospital in Bangkok, Thailand.

"Widespread use of drugs among the under-25-year-old age group in the states has been repeatedly documented, and our troop questionnaires confirm that 70 per cent of soldiers arrived (in Southeast Asia) with some kind of prior drug experience," says Major Arthur J. Siegel of the U. S. Army Medical Corps. Dr. Siegel is now with Peter Bent Brigham Hospital, Boston.

In the Mar. 12 *Journal of the American Medical Association*, Dr. Siegel reports on "The Heroin Crisis Among U. S. Forces in Southeast Asia." Heroin use among the troops reached epidemic proportions, he says, beginning early in 1970 and reaching a peak in mid-1971. The military's Drug Abuse Counter-Offensive beginning in June, 1971, led to decreasing incidence of

heroin use and a dramatic decline in the case fatality rate, he pointed out.

The heroin crisis was generated by a unique group of factors, principally, the availability of drugs, Dr. Siegel says.

"Southeast Asia is a cornucopia in this respect."

Drugs of all varieties are plentiful, cheap and easy to find, he says. A pack of 20 marijuana cigarettes is widely available for less than one dollar—marijuana that is much more potent than that usually available in the United States. Barbiturates and amphetamines can be purchased without prescription.

"Despite recent political pressure for stricter surveillance, pure heroin remains readily obtainable in Bangkok or wherever troops subsist in-country."

Of those men who reported using drugs at home before being sent to Southeast Asia, about three-fourths of them had used marijuana, others had tried barbiturates and amphetamines and a few had used hallucinogens, such as LSD. Very few had been heroin users.

Strongest reason for appeal of drugs overseas might be called simply culture shock, he said. The soldier finds himself removed from the familiar constraints on his behavior, while he adjusts to a new set of expectations placed on him. Off-duty time is filled with boredom and frustration. The psychological adjustment demanded is formidable, Dr. Siegel says.

Detoxification of those who became known as addicts is accomplished in military hospitals, but the still largely unanswered question is whether the men will resume heroin use after they return home, he declares.

Men with strong personalities are unlikely to return to drugs back in the states. Others who are less secure may relapse. These are men with a history of family strife, parental separations and personal failures. They are often school dropouts who never held a significant job in civilian life. Delinquent activities as teenagers are common.

"Heroin is but the latest in a series of poor adjustment responses to an environment that seems to be challenging in any setting," either overseas or at home.

American physicians were urged to be alert for symptoms that might be related to heroin use among their patients.

The simple question: "What about heroin during your tour in Vietnam?" may allow the patient to open up on the issue for which he is really seeking help, Dr. Siegel says.

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Otolaryngology Course Set for Chicago

The annual Otolaryngologic Assembly of 1973 will be held Oct. 20-26, 1973, in the Eye and Ear Infirmary of the University of Illinois Hospital.

The Department of Otolaryngology of the Abraham Lincoln School of Medicine, University of Illinois at the Medical Center, offers a condensed basic and clinical program for practicing otolaryngologists under the direction of Dr. Emanuel M. Skolnik, with Dr. Burton J. Soboroff as co-chairman. This program is designed to bring to specialists current information in medical and surgical otorhinolaryngology.

Interested otolaryngologists should direct their inquiries to the mailing address: Otolaryngology, P. O. Box 6998, Chicago, Ill. 60680.

A separate, but correlated course, "Conference on Radiology in Otolaryngology and Ophthalmology" will be held this year on Friday and Saturday, Nov. 23-24, under the guidance of Dr. Galdino E. Valvassori.

For further information about the radiology conference, write to Professor Valvassori, Radiology Department, Abraham Lincoln School of Medicine, P. O. Box 6998, Chicago, Ill. 60680.

AMA President Disagrees With Malpractice Report

The president of the American Medical Association filed a vigorous dissent to a federal Commission on Medical Malpractice report which blamed physicians and hospitals for much of the problem.

A central finding of the special commission was that injuries to patients, and not greedy avaricious contingency fee lawyers, are the reason for the increased number of malpractice claims. The report included about 100 findings and recommendations.

In his dissent, Dr. C. A. Hoffman, AMA president and one of the 21 members on the commission, said that the panel had failed in its primary purpose to come up with a program "calculated to ameliorate" the nation's malpractice problems. He said:

"The report does not appear to be calculated to ameliorate such problems to any significant degree. Some of its recommendations, if implemented, would be likely to stimulate an increased frequency of claims. The increasing frequency and cost of claims has an unavoidable adverse effect on health care. . . .

"The report fails entirely to identify the problems of medical malpractice claims as what they really are—a part of the much larger and more general problems of liability claims litigation. In the United States, people have always been quick to file lawsuits for any injury, real or imagined. The legal system encourages litigation. There is a definite trend in court decisions to make it continually easier for claimants to recover substantial damages, with less and less proof of fault.

"This trend is well established in all fields of activity including automobile liability, product liability, airline and rail liability, homeowners liability and all others. Malpractice liability is the most visible and harmful part of this trend, because it affects the vital area of health care.

"As a part of this trend certain legal doctrines have been established which apply only in lawsuits against health care providers and which make it easier for claimants to recover damages with little proof of fault. These doctrines include: (a) the 'discovery' rule under the statute of limitations; (b) the application of the doctrine of *res ipsa loquitur* to injuries arising out of the performance of professional services; (c) the doctrine of 'informed consent' and (d) a rule allow-

ing liability based on an alleged oral guarantee of good results. If this trend continues unchecked, the logical results will be that health care providers will be held liable for any unfortunate result arising from health care, even if there was no fault on the part of anyone and the result was entirely unavoidable.

"These legal doctrines are one of the most important causative factors for the problems of the increasing cost and frequency of malpractice claims. Instead of making a strong recommendation for appropriate and equitable remedial legislation, the report merely recommends referral of the legal doctrines problems, which it reluctantly admits exist, to some vaguely defined and presently nonexistent group which is supposed to develop recommendations for uniform rules of law, 'in the nature of a Restatement of the Law of Medical-Legal Principles.' This is inadequate as a remedy for this major problem.

"I, like other physicians, affirm that any patient who is injured in the course of his health care as a direct result of negligence on the part of any provider is entitled to just and reasonable compensation. Where an injury occurs despite the best of care, however, health care providers should not be unjustly burdened with the cost of compensation. If they are, this inevitably adds to the cost of health care.

"The report gives the false impression that the rapid increase in the frequency and cost of claims has arisen from a deterioration in the general quality of health care. The reality is the frightening paradox that the general quality of health care has been improving dramatically at the same time that the frequency and cost of claims have been skyrocketing.

"The report stresses the obvious fact that there would be no claims if there were no injuries. Where surgery or potent drugs are required, the risk of injury is unavoidable. Only a small percentage of the injuries, however, are caused by the negligence of anyone.

"The report does contain some constructive recommendations. These include: (a) development of injury prevention programs, (b) study of alternative compensation systems, and (c) data collection, if limited by careful cost justification."

Fetal Monitoring Symposium Set

A Symposium on Fetal Monitoring will be held on July 14 at the L.S.U. Medical School Auditorium, New Orleans.

Encounter under the Scanning Electron Microscope



SEM reveals changes in *E. coli* exposed to antibacterial agents

The Scanning Electron Microscope (SEM) is the only instrument which gives 3-dimensional views on a microscopic level. This permits the surface morphology of microorganisms to be observed in

detailed perspective. Changes in surface morphology of *E. coli* exposed to various antimicrobial agents are seen on the following page. An SEM photomicrograph of normal control *E. coli* appears above.



E. coli + sulfamethoxazole



E. coli + tetracycline



E. coli + cephalothin



E. coli + ampicillin

Different modes of antibacterial action — Similar changes in morphology

As part of a series of experiments,¹⁻³ strains of *E. coli* proven susceptible to each antibacterial agent were exposed to 1 MIC of the respective antibacterials for a three-hour period. Included were cell-wall-active drugs, ampicillin and cephalothin; a drug interfering with intracellular protein synthesis, tetracycline; and a chemical agent which acts by interference with para-aminobenzoic acid, sulfamethoxazole.

As seen above, elongation of the bacilli, mid-cell defects and spheroplast-like forms may be appreciated with the SEM technique. These changes in bacterial morphology were similar... regardless of the antibacterial agent used and irrespective of

its mechanism of action.

"At present, the significance of these observations in clinical infection must be considered with caution, but it is hoped that these data will stimulate a reevaluation of present concepts of the nature and role of morphological variants of bacteria exposed to a variety of antibacterial factors."²

It should be noted that no clinical conclusions can be drawn from this study, as it is not always possible to extrapolate *in vitro* data to humans.

References: 1. Klainer, A. S.; Fass, R. J., and Perkins, R. L.: Scientific Exhibit presented at the 25th American Medical Association Clinical Convention, New Orleans, La., Nov. 28-Dec. 1, 1971. 2. Klainer, A. S., and Perkins, R. L.: *Antimicrob. Agents Chemother.*, 1:164, 1972. 3. Klainer, A. S.: Data on file, Hoffmann-La Roche Inc., Nutley, N.J.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute, recurrent or chronic nonobstructed urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms. **Note: Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response; add aminobenzoic acid to follow-up culture media. The increasing frequency of resistant organisms limits the usefulness of antibacterials including sulfonamides, especially in chronic or recurrent urinary tract infections.** Measure sulfonamide blood levels as variations may occur; 20 mg/ 100 ml should be maximum total level.

Contraindications: Sulfonamide hypersensitivity; pregnancy at term and during nursing period; infants less than two months of age.

Warnings: Safety during pregnancy has not been estab-

lished. Sulfonamides should not be used for group A beta-hemolytic streptococcal infections and will not eradicate or prevent sequelae (rheumatic fever, glomerulonephritis) of such infections. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported and early clinical signs (sore throat, fever, pallor, purpura or jaundice) may indicate serious blood disorders. Frequent CBC and urinalysis with microscopic examination are recommended during sulfonamide therapy. Insufficient data on children under six with chronic renal disease.

Precautions: Use cautiously in patients with impaired renal or hepatic function, severe allergy, bronchial asthma; in glucose-6-phosphate dehydrogenase-deficient individuals in whom dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: Blood dyscrasias (agranulocytosis,

Encounter in Clinical Practice

Control of primary bacterial offenders

Antibacterial Gantanol® (sulfamethoxazole) controls susceptible strains of *E. coli* and other gram-negative and gram-positive organisms

often implicated in acute nonobstructed pyelonephritis and cystitis.

Prompt antibacterial blood and urine levels

In from 2 to 3 hours after the initial 2-Gm adult dose, antibacterial levels are present in

both the blood and urine.

B.I.D./T.I.D. dosage for around-the-clock coverage

Subsequent 1-Gm doses provide up to 12 hours of antibacterial coverage. More severe u.t.i. may require a q. 8 h. dosage regimen. Either schedule provides coverage during the waking

and sleeping hours—especially important during hours of sleep when normal urinary retention tends to favor bacterial proliferation.

Also effective in nonobstructed chronic and recurrent u.t.i.

It is not uncommon for the elderly and the debilitated to develop chronic and/or recurrent nonobstructed urinary tract infections such as pyelonephritis and cystitis. Such cases often re-

spond satisfactorily to Gantanol. The increasing frequency of resistant organisms is a limitation of usefulness of antibacterial agents including sulfonamides, especially in chronic or recurrent u.t.i.

Your Option: Tablets or Suspension

Either dosage form—the Tablets or the pleasant-tasting, cherry-flavored Suspension—can provide the dependable antibacterial activity necessary to control susceptible nonobstructed cystitis and pyelonephritis. Symptomatic improvement may usually be expected in 24 to 48 hours. The usual precautions with sulfonamide

therapy should be observed, including adequate fluid intake. Gantanol (sulfamethoxazole) is generally well tolerated with relative freedom from complications; the most common side effects are nausea, vomiting and diarrhea. Frequent c.b.c.'s and urinalyses with microscopic examination are recommended.

**In nonobstructed cystitis
and pyelonephritis due to
susceptible organisms**

**Gantanol[®]
(sulfamethoxazole)
Basic Therapy**

aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia); *allergic reactions* (erythema multiforme, skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis); *gastrointestinal reactions* (nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis); *CNS reactions* (headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia); *miscellaneous reactions* (drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon). Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide, thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia as well as thy-

roid malignancies in rats following long-term administration. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis).

Usual adult dosage: 2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection.

Usual child's dosage: 0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, then 0.25 Gm/20 lbs *b.i.d.* Maximum dose should not exceed 75 mg/kg/24 hrs.

Supplied: Tablets, 0.5 Gm sulfamethoxazole; Suspension, 0.5 Gm sulfamethoxazole/teaspoonful.



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School Driving Session Scheduled

"Driving Safely—A Critical School Health Problem" will be the theme of the 15th annual session on school health sponsored by the AMA and the American School Health Association.

The session will be held on June 24 at the Americana Hotel in New York City.

For further information, write Department of Health Education, AMA, 535 North Dearborn St., Chicago, Ill. 60610.

Leukemia Society Is Accepting Grants

Applications for financial grants to researchers working in the fields of leukemia and allied diseases are now being accepted by the Leukemia Society of America, Inc.

The society, a national health agency supported entirely by voluntary contributions, offers a trio of funding programs for qualified candidates according to Dr. Joseph H. Burchenal, vice president for Medical and Scientific Affairs.

Applicants need not be American citizens and there are no restrictions as to age, color, sex or creed. The three types of funding are:

(1) Scholarships: Five year grants for a total of \$100,000 for those who have demonstrated distinct ability in the investigation of leukemia.

(2) Special Fellowships: Two year grants for a total of \$31,000 for those who have demonstrated ability in postdoctoral research whose qualifications place them between scholar and fellow status.

(3) Fellowships: Two year grants for a total of \$19,000 for promising younger investigators to encourage their work in leukemia research.

In exceptional circumstances, emergency small grants up to \$3,000 may be awarded for one year to initiate or implement a research program.

The deadline for submitting completed applications is Oct. 1, 1973. Funding for approved grants will begin July 1, 1974.

Application forms may be obtained by writing to the Vice President for Medical and Scientific Affairs, Leukemia Society of America, Inc., 211 East 43rd Street, New York, N. Y. 10017.

Rondomycin[®] (methacycline HCl)

CONTRAINDICATIONS: Hypersensitivity to any of the tetracyclines.

WARNINGS: Tetracycline usage during tooth development (last half of pregnancy to eight years) may cause permanent tooth discoloration (yellow-gray-brown), which is more common during long-term use but has occurred after repeated short-term courses. Enamel hypoplasia has also been reported. **Tetracyclines should not be used in this age group unless other drugs are not likely to be effective or are contraindicated.**

Usage in pregnancy. (See above **WARNINGS** about use during tooth development.) Animal studies indicate that tetracyclines cross the placenta and can be toxic to the developing fetus (often related to retardation of skeletal development). Embryotoxicity has also been noted in animals treated early in pregnancy.

Usage in newborns, infants, and children. (See above **WARNINGS** about use during tooth development.)

All tetracyclines form a stable calcium complex in any bone-forming tissue. A decrease in fibula growth rate observed in prematures given oral tetracycline 25 mg/kg every 6 hours was reversible when drug was discontinued.

Tetracyclines are present in milk of lactating women taking tetracyclines.

To avoid excess systemic accumulation and liver toxicity in patients with impaired renal function, reduce usual total dosage and, if therapy is prolonged, consider serum level determinations of drug. The antianabolic action of tetracyclines may increase BUN. While not a problem in normal renal function, in patients with significantly impaired function, higher tetracycline serum levels may lead to azotemia, hyperphosphatemia, and acidosis.

Photosensitivity manifested by exaggerated sunburn reaction has occurred with tetracyclines. Patients apt to be exposed to direct sunlight or ultraviolet light should be so advised, and treatment should be discontinued at first evidence of skin erythema.

PRECAUTIONS: If superinfection occurs due to overgrowth of nonsusceptible organisms, including fungi, discontinue antibiotic and start appropriate therapy.

In venereal diseases, when coexistent syphilis is suspected, perform darkfield examination before therapy, and serologically test for syphilis monthly for at least four months.

Tetracyclines have been shown to depress plasma prothrombin activity; patients on anticoagulant therapy may require downward adjustment of their anticoagulant dosage.

In long-term therapy, perform periodic organ system evaluations (including blood, renal, hepatic).

Treat all Group A beta-hemolytic streptococcal infections for at least 10 days.

Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, avoid giving tetracycline with penicillin.

ADVERSE REACTIONS: Gastrointestinal (oral and parenteral forms): anorexia, nausea, vomiting, diarrhea, glossitis, dysphagia, enterocolitis inflammatory lesions (with monilial overgrowth) in the anogenital region.

Skin: maculopapular and erythematous rashes; exfoliative dermatitis (uncommon). Photosensitivity is discussed above. (See **WARNINGS**).

Renal toxicity: rise in BUN, apparently dose related (See **WARNINGS**).

Hypersensitivity: urticaria, angioneurotic edema, anaphylaxis, anaphylactoid purpura, pericarditis, exacerbation of systemic lupus erythematosus.

Bulging fontanels, reported in young infants after full therapeutic dosage, have disappeared rapidly when drug was discontinued.

Blood: hemolytic anemia, thrombocytopenia, neutropenia, eosinophilia

Over prolonged periods, tetracyclines have been reported to produce brown-black microscopic discoloration of thyroid glands; no abnormalities of thyroid function studies are known to occur.

USUAL DOSAGE: Adults—600 mg daily, divided into two or four equally spaced doses. More severe infections: an initial dose of 300 mg followed by 150 mg every six hours or 300 mg every 12 hours. Gonorrhea: in uncomplicated gonorrhea, when penicillin is contraindicated, 'Rondomycin' (methacycline HCl) may be used for treating both males and females in the following clinical dosage schedule: 900 mg initially, followed by 300 mg q.i.d. for a total of 5.4 grams.

For treatment of syphilis, when penicillin is contraindicated, a total of 18 to 24 grams of 'Rondomycin' (methacycline HCl) in equally divided doses over a period of 10-15 days should be given. Close follow-up, including laboratory tests, is recommended.

Eaton Agent pneumonia: 900 mg daily for six days.

Children—3 to 6 mg/lb/day divided into two to four equally spaced doses.

Therapy should be continued for at least 24-48 hours after symptoms and fever have subsided.

Concomitant therapy: Antacids containing aluminum, calcium or magnesium impair absorption and are contraindicated. Food and some dairy products also interfere. Give drug one hour before or two hours after meals. Pediatric oral dosage forms should not be given with milk formulas and should be given at least one hour prior to feeding.

In patients with renal impairment (see **WARNINGS**), total dosage should be decreased by reducing recommended individual doses or by extending time intervals between doses.

In streptococcal infections, a therapeutic dose should be given for at least 10 days.

SUPPLIED: 'Rondomycin' (methacycline HCl) 150 mg and 300 mg capsules; syrup containing 75 mg/5 cc methacycline HCl.

Before prescribing, consult package circular or latest PDR information.

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DDP Projects Total Nineteen

The Mississippi Interagency Commission on Mental Illness and Mental Retardation has approved 19 project grants totaling \$450,211.62 for the developmentally disabled population of Mississippi.

Dr. Dorothy N. Moore, MIC program director, said the first DDP grant award was made on Sept. 19, 1971, to the Board of Trustees of Mental Institutions to assist in planning for the new North Mississippi Retardation Center. Since that time 18 additional projects have been funded.

All project funding conforms to program priorities set by the Developmental Disabilities Planning and Advisory Council which is composed of 29 citizen and agency members.

The following grants were awarded: (1) Board of Trustees of Mental Institutions, Jackson, Miss. for North Mississippi Retardation Center Planning Project—\$30,505.32; (2) Mississippi Association for Retarded Children, Inc., Jackson, Miss. for survey of program resources available to the developmentally disabled of Miss.—\$46,198.36; (3) University of Mississippi Medical Center Division of Neurology, Jackson, Miss. for gas-liquid chromatograph anti-convulsant levels in epileptics—\$16,580.00; (4) Ellisville State School, Ellisville, for expansion of Jaycee evaluation center (equipment)—\$23,818.00; (5) State Board of Health Division of General Health Services for equipment for neurological services (Neurological Clinic)—\$4,255.00; (6) Mississippi Hospital-School for Cerebral Palsy, Jackson, for transportation (van), pre- and post-operative photography, educational materials—\$7,984.06; (7) Ellisville State School, Ellisville, for community-based day care centers for the developmentally disabled (equipment and supplies)—\$19,515.00; and (8) Harrison County Association for Retarded Children, Gulfport, for day training for adult developmentally disabled—HARC Adult Activity Center—\$30,180.00.

Others were: (9) Yellow Creek-Tombigbee Region IV MH/MR Commission, Corinth, for Region IV planning (for alcohol abuse, mental health and developmental disabilities) (4 counties)—\$5,000.00; (10) North Mississippi Retardation Center, Oxford, for bus transportation for Lafayette County Development Center—\$4,051.79; (11) Ellisville State School for transportation for off-campus special education and child development program—\$24,800.00; (12)

Region 11 Commission on Mental Illness and Mental Retardation, Oxford, for Adult Activity Center for 40 developmentally disabled (7 counties)—\$44,263.60; (13) Mississippi Crippled Children's Treatment and Training Center, Jackson, for expansion of educational diagnosis and evaluation—\$11,869.00; (14) Mississippi State Board of Health for Comprehensive Neurology Clinics for the developmentally disabled—\$32,758.00; (15) Willowood Development Center, Jackson, for Willowood Child Development Center for 20 preschool developmentally disabled—\$32,683.22; (16) Region 1 Commission on Mental Health and Mental Retardation, Clarksdale, for day care program for 25 developmentally disabled persons—\$29,967.56; (17) Region 10 Commission on Mental Health and Mental Retardation, Meridian, for planning grant for developmentally disabled for Region 10 (9 counties)—\$18,750.00; (18) Region 7 Commission on Mental Health and Mental Retardation, Starkville, for planning grant for developmentally disabled for Region 7 (7 counties)—\$16,100.00; and (19) Willowood Development Center, Jackson, for Adult Activity Center to serve 75 developmentally disabled persons (7 counties)—\$50,932.71.

UMC Hosts Diabetes Seminar



Dr. Phillip Gorden, left, National Institute of Arthritis senior investigator, and Dr. Hunter Little, center, Palo Alto Medical Clinic ophthalmologist and native Mississippian, were among speakers at a Diabetes and Diabetic Retinopathy Seminar held at the University Medical Center in April. Here they talk with seminar registrant Dr. David Clippinger of Gulfport. The seminar was co-sponsored by the University of Mississippi School of Medicine, Society for the Prevention of Blindness and Vocational Rehabilitation, Division for the Blind.

NHLI Blood Disease Division Names Director

Dr. Ernest Robert Simon has been named director of the Division of Blood Diseases and Resources of the National Heart and Lung Institute. The announcement was made by Dr. Theodore Cooper, director of the institute.

Dr. Simon will head one of six divisions established within the NHLI following its elevation to bureau status and subsequent reorganization.

This division, which has a current budget of \$38.1 million, is made up of four branches dealing with: (1) thrombosis (blood clots in the heart or blood vessels) and hemorrhagic disease (hemophilia, etc.); (2) manpower and resources; (3) blood resources (blood banking); and (4) sickle cell anemia (a genetic blood disorder primarily afflicting black people but found in other ethnic groups).

Through the Thrombosis and Hemorrhagic Diseases Branch, research is being supported to determine the effects of certain drugs on blood clotting, as well as studies of coagulation disorders.

WANTED

Physicians and staff psychiatrists for Psychiatry Service of University Affiliated VA Hospital. Salary range to \$34,971 plus fringe benefits depending on qualifications. Current unrestricted license in any State of U. S. required. Research and teaching opportunities and University Medical faculty appointments available. Contact:

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Medical Assistants Hold 7th Annual Meet

Principal speaker at the 7th annual state convention of the Mississippi Society of the American Association of Medical Assistants was Dr. A. A. Derrick, Jr., Durant, president-elect of the Mississippi State Medical Association. The meeting was held at the Broadwater Beach Hotel, Biloxi, on April 27. Presiding at all functions was Mrs. Thelma VanCloostere, RN, Long Beach, president.

Dr. Derrick spoke on "Your Own Special Brand of ESP." C. T. Walker, director, hospital and professional relations, Mississippi Hospital and Medical Service, Jackson, served as master of ceremonies.

W. C. Mosley, executive vice-president, Mississippi Hospital and Medical Service was the Saturday luncheon speaker, and Miss Jo Estrada, RN CMA, San Antonio, Texas, chairman, AAMA certifying board, conducted the Saturday afternoon workshop on certification.

Immediately following the installation banquet Delta Chapter (Greenwood) entertained at a reception honoring Miss Estrada and state officers.

Sunday morning devotional was conducted by Dr. Edward H. Currie, Gulfport, followed by a buffet breakfast and a final business session.

General chairman of the meeting was Mrs. Helen Donohoo, Gulfport. Her committee included Mrs. Marguerite Bond, registration; Mrs. Joanne Armes, decorations; Mrs. Mary Ellen Ladner and Mrs. Mattie North, hostesses; Mrs. Marian Cook, Tupelo, door prize; and Mrs. Jane Clowe, Jackson, tote bags.

Physician advisors in attendance were Drs. Richard G. Burman, Gulfport, chairman, national advisory board; James P. Spell, Jackson, chairman, state advisory board; Guy D. Campbell, Jackson; William T. Oakes, Amory, and John D. Wofford, Greenwood.

State officers present are Mrs. VanCloostere, Mrs. Donohoo, president-elect; Mrs. Gladys Lamb, Greenwood, vice-president; Mrs. Evelyn Wright, Plantersville, secretary; and Mrs. Elizabeth W. Hampton, CMA, Jackson, treasurer.

Chapter presidents are Mrs. Hampton, Central; Mrs. Lois Powell, Coast Counties; Mrs. Sarah Barrentine, Delta; Mrs. Dorothy C. Rowell, Hattiesburg; Mrs. Peggy Tidwell, Meridian; Mrs. Virginia Becker, Northeast; Mrs. Faye Rappe, Prairie; and Mrs. Jo Lynn Wall, South Central.



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